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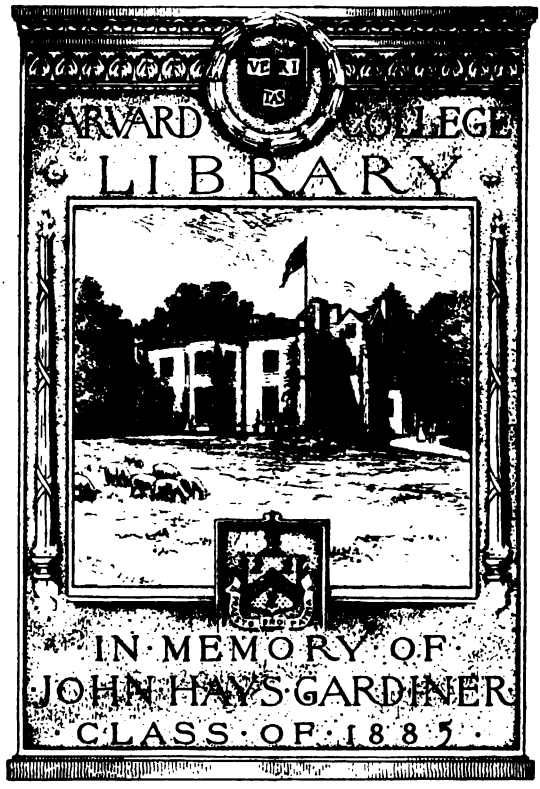
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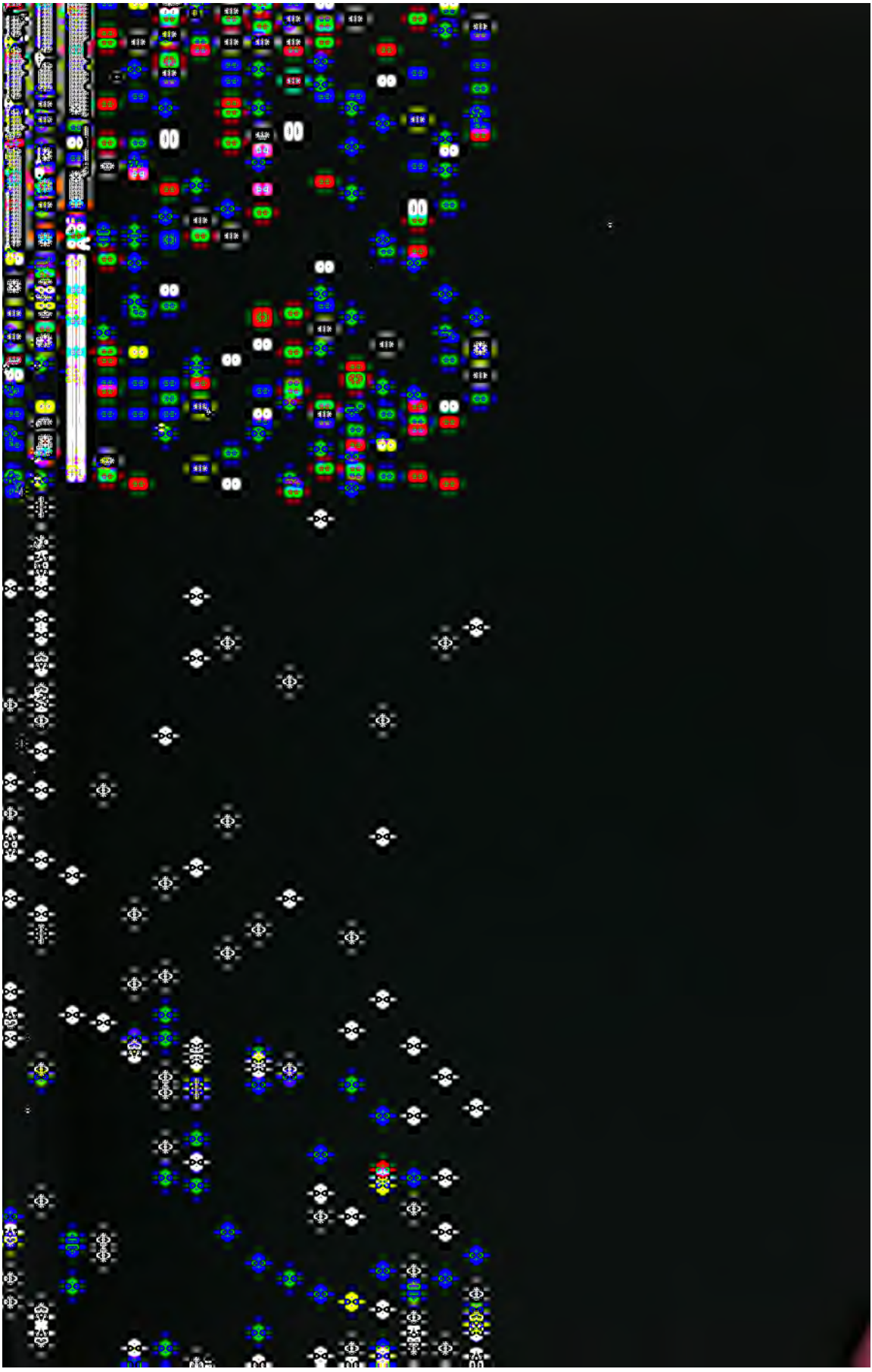

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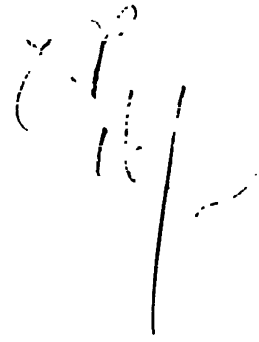

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MODERN STRATEGY

MODERN STRATEGY

AN OUTLINE OF

THE PRINCIPLES WHICH GUIDE THE CONDUCT

OF CAMPAIGNS

TO WHICH IS ADDED A CHAPTER ON

MODERN TACTICS

BY

LIEUT.-COL. WALTER H. JAMES, P.S.C.

R.E. (RETIRED)

AUTHOR OF 'THE CAMPAIGN OF 1815,' ETC.
EDITOR OF THE WOLSELEY SERIES

THIRD EDITION, REVISED AND ENLARGED

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"History maketh a man to be old without either wrinkles or grey hairs; privileging him with the experience of age without either the infirmities or inconveniences thereof. Yea, it not only maketh past things present, but enableth one to make a rationall conjecture of things to come. For this world affordeth no new accidents but in the same sense wherein we call it *a new moon*, which is the old one in another shape and yet no other than what hath been formerly. Old actions return again furbished over with some new and different circumstances."

PREFACE TO THIRD EDITION.

THE present edition has been revised, brought up to date, and a brief account of the Russo-Japanese War added to it.

WALTER H. JAMES.

BUSHMEAD HALL, BEDFORD,
June 1908.

PREFACE TO SECOND EDITION.

THE rapidity of the sale of the First Edition may, I venture to think, be taken as a proof that the book has been found useful by my brother officers. I am confirmed in this belief by the encouragement and approbation I have received from all the foremost British military leaders, by the fact that His Imperial Majesty the German Emperor has been graciously pleased to accept a copy of the work, and by its recent adoption in India as the text-book for Promotion Examinations.

I have added to this Edition a chapter on Sea Power, another on the subject of Pursuits and Retreats, and a third on the Influence of Moral Factors on War. The command of the sea is so important a factor in England's strategy, that even in a book which is purely military it is not out of place to deal with it. I have also added Moltke's Plan of Campaign against the French in 1870. It forms a valuable exposition of the train of thought which determined the direction given to the armies of Germany at the outset of the operations in the Franco-German war, and serves as a model of what such documents should be.

WALTER H. JAMES.

BUSHMEAD HALL, BEDFORD,
September 1904.

PREFACE TO FIRST EDITION.

No intelligent interest can be taken in the operations of war by those who do not understand the principles which guide the movements of opposing armies. There is a mistaken notion, somewhat prevalent for the moment in this country, that war can be conducted by the light of nature, and that study and preparation are quite unnecessary to ensure success in military affairs. It is not, perhaps, a sufficient reply to the advocates of ignorance, being one they are incapable of understanding, to say that those generals who have gained the greatest successes in the field have been the most assiduous students of the art of war in time of peace. Yet to any one acquainted with military history three notable examples of the fact stand prominently forward in the cases of Napoleon, Wellington, and Moltke, all three of whom have shown in practice the value of a military education, and have urged its necessity.[1] But those who deride study usually reply that the proportion of officers who attain to high positions is small, and that regimental officers are merely concerned with the leading of small bodies of troops. That is undoubtedly the case; but, nevertheless, a knowledge of strategy is desirable even for them. For it teaches why

[1] The struggle between Japan and Russia is a striking proof of what military education can do. Japan in little more than thirty years has entirely assimilated Western ideas of war, and stands on the same plane for organisation, equipment, and methods of handling troops as the best armies of Europe.

great successes were gained, and thus enables them, when tactical problems are offered for solution, to choose the course of action best suited to the strategical requirements of the case. Tactics and strategy are interdependent; together they form the complete art of war. For tactical success is necessary to set the final crown on successful strategy, and no great result is gained by winning a battle unless it comes as the final act of well-planned operations. Examples have occurred in war where a general has, by a lucky battle, extricated himself from a bad strategical position, but history proclaims with no uncertain sound that false strategy, followed by tactical defeat, means crushing disaster to the beaten side.

The fighting in South Africa has shown clearly that the military value of even small bodies of detached troops may be very great, and that their operations should be based on a proper recognition of the relative value of strategical points. An officer in command of such a detachment is frequently obliged to come to a strategical decision, and to do so without the possibility of communicating with superior authority. Thus if he learn that the enemy has made some unexpected movement, he is bound at once to face the new situation. This is strategy. Again, it is impossible for him to appreciate the meaning of hostile manœuvres or to sift out the truth from conflicting reports about them unless he comprehends the guiding rules of the art. The youngest officer in command of a cavalry patrol may have strategical problems repeatedly brought before him; he cannot solve them, or even properly direct his own observations, unless he knows the principles which influence the leading of troops.

For the staff officers of an army training in staff duties and in the higher operations of war is an absolute necessity. Without such knowledge they cannot rightly understand the military situation as it unfolds itself from day to day, and cannot be intelligent assistants to those whom they have to

help in conducting the movements of armies. "The great thing," said the Duke of Wellington, "is to know from this side of the hill what the enemy is doing on the other." To do this the mind must be so taught and practised that it can rapidly judge what the enemy will do, because it knows, from previous study and reflection, what is best for him to do in the situation,—can determine, therefore, the most probable line of action to expect from the adversary, and devise accordingly the best plan to meet it.

It is sometimes further urged that strategy can only be learned by experience. A slight study of the records of great generals at once shows the error of this statement. It is the very portion of the art of war which can best be learned from the experience of others—*i.e.*, from the records of military history. Napoleon's project for a campaign in Northern Italy, written in 1795, before he had ever commanded an army; Moltke's carefully thought-out plans for the campaign of 1866; Wellington's expositions of his intentions in his various campaigns, and his remarkable memorandum on Napoleon's expedition to Russia in 1812; Jomini's accurate forecast of the course of the Jena campaign,—all show what is possible to trained intelligence.

Mere exposure to fire will not produce military genius. Frederick the Great, replying to one who advocated the extreme value of personal experience, remarked that a mule might have been through the wars of the Prince Eugen, but would still have been a mule at the end of them. The leaders of our troops in the American campaign of 1814 had all served under the Great Duke in the Peninsula, but do not seem to have assimilated much military knowledge in the process. Study is as necessary in the military profession as in any other—nay, more so. In many occupations mistakes can be made without much detriment to the community at large; but the officer who blunders from ignorance throws away the lives of his comrades, and may bring disaster on his country.

The soldier, then, must study to prepare himself for war, and there may be others desirous of learning the art for its own sake. If they once comprehend the simple rules which must be observed to practise it successfully, they will appreciate and understand in a way otherwise impossible the right and the wrong of military operations. Then history will no longer be to them a mere record of marches and battles, but the reasons which operated in the mind of the general and led to the various movements will become as evident as the sun at noontide. The inner meaning of the advance from Ismailia on Cairo rather than from Alexandria, the reason of the flank movement on Paardeberg, are obvious to those who have studied war. They will understand why Napoleon's descent from the Alps to the plains of Piedmont produced such great results; why the single victory of Vimiera, followed up by no pursuit, insured the freedom of Portugal; why Vittoria, Waterloo, and Königgrätz were not mere defeats but crushing disasters.

"Felix qui potuit rerum cognoscere causas."

They would have prophesied thirty years ago the certainty of failure of the flank march on Sedan, and in a future war will detect, in a manner only possible to those who have studied, the probable course of operations. Such comprehension must always be interesting even to the general reader; to the soldier it is indispensable. For no one can know when responsibility will be thrown on him, and how much may then depend on his knowledge and ability.

The following pages will explain to those who read them the principles on which success in war has always been founded. They form in nowise an exhaustive treatise, but it is hoped may serve as an inducement to the study of the records of military operations, and help to elucidate their meaning.

WALTER H. JAMES.

NOTICE TO THE READER.

It is suggested that the student should first of all read through Part I. of the book, not paying much attention to the examples, but mastering the principles laid down. The campaigns illustrating these, which are given in Part II., should then be thoroughly learned. The first portion of the book may then be re-read, after which other campaigns, such as those of Napoleon, may be studied in light of the knowledge which has thus been acquired.[1]

[1] The best book available in English for this purpose is 'Napoleon as a General,' by the late Colonel Count Yorck v. Wartenburg, published in the Wolseley Series. Among other works which may be read with advantage are 'The Science of War,' by the late Lieut.-Colonel G. F. R. Henderson, in which many military questions are ably discussed; 'Das Volk in Waffen' of v. d. Goltz; Pierron's 'Méthodes de guerres actuelles et vers la fin du xix^e^ siècle,' also his book entitled 'La stratégie et la tactique allemande au début du xx^e^ siècle'; 'Strategie,' by Blume; and 'La guerre moderne' of Darrécagaix. Von Schlichting's 'Taktische und strategische Grundsätze der Gegenwart' is a good book, as showing recent German views on war; Horsetzky's 'Kriegsgeschichtle Uebersicht der wichtigsten Feldzüge in Europa seit 1792' can be recommended as giving a good summary of the most important campaigns up to 1878.

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INTRODUCTION.

As in learning a language it is necessary to begin with the alphabet, so in commencing the study of an art it is desirable that the technical terms made use of in it should be fully comprehended. Many of the old writers on strategy have overloaded their treatises with elaborate definitions, and thereby rendered them needlessly obscure. But time has sealed with definite meanings certain phrases which represent concrete ideas, technical expressions, which will be clearly recognised by the practised student, but which are not so obvious to the tyro. In the following pages these will frequently be made use of, and it is well, therefore, at once to explain the most important of them.

Plan of campaign.—The guiding idea borne in mind by the commander during the operations. This may have to be varied after an encounter with the enemy, and it is evident, therefore, that no unchangeable plan can be laid down beforehand, although the same general idea may prevail throughout—*e.g.*, the endeavour to capture the enemy's capital, the occupation of certain points, or the conquest of a particular portion of territory. Hence in this book what is ordinarily described as the plan of campaign is called the *general idea.* French authors sometimes speak of it as the *project of operations.*

Special idea is that part of the General Idea which, for a time, is the immediate object of the operations.

Objective.—The point or object against which the movements of an army are directed. At first the main hostile army, and during the war the capital, or other important point, the occupation of which is likely to have an influence on the struggle. Sometimes the most decisive point is called the *primary* or *main* objective, while others, which are for a time important, are called *secondary* objectives.

Theatre of war.—The whole country over which two antagonists may come into collision.

Theatre of operations.—That part of the theatre of war in which fighting takes place.

Front of operations.—The portion of country between two hostile armies in which collision may occur.

Base of operations.—This phrase covers two separate ideas—(1) the zone of country in which the strategical deployment takes place, and which forms the starting-point of the strategical manœuvres at the commencement of a war; (2) the territory in which the depôts for the supply of the army in the field are constructed. The expression Base of Operations, therefore, includes the *Base* or source of *Supplies* as well as the Base from which the dispositions to meet the enemy are made. The whole country to which the army belongs forms the *Ultimate Base of Operations* so far as supply is concerned.

Line of operations.—The tract of country through which an army advances to attack an enemy. This may include several roads leading in the same direction.

Line of communications.—The route by which reinforcements, supplies of ammunition, food, &c., are sent up to the army from the base of operations. The line of operations very often will subsequently become the line of communications, but it is not necessarily the same.

Strategical deployment.—The concentration and develop-

ment of the troops in the position from which they commence active operations against the enemy.

Strategical front.—The general front taken up by an operating army—*i.e.*, roughly the line formed by the heads of its various columns.

Strategical flank.—The more important flank of the strategical front. This will usually be the one which is nearer to the line of communications.

Strategical points.—Positions, such as the capital of a country, railway junctions, arsenals, dockyards, important towns, bridges, mountain-passes, strong tactical positions, the possession of which is important to one or both sides for carrying on the war.

Interior lines.—A force is said to act on interior lines against two bodies of the enemy when the line of operations along which it moves to strike either of them is shorter than that by which these two separate bodies would have to move to unite for action.

Exterior lines.—A force is said to move on exterior lines when the line of operations on which it moves from one place to another is longer than the shortest line it could use. This method of operating is usually employed for outflanking purposes. Thus a portion of the army may be used to *contain*—*i.e.*, hold fast—the enemy, while the other moves by an outer line against his flank. In acting by interior lines it is equally necessary to contain the fraction of the enemy not actively struck at. In both instances, therefore, there is as it were a division of the offensive army into two parts, the one acting as the sword, the other as the buckler.

Flanking position.—An army occupies a flanking position with regard to another when it is posted to the right or left of the line of communications of the latter.

Formed to a flank.—An army is described as formed to a flank when its front is parallel to its line of communications.

PART I.

MODERN STRATEGY.

CHAPTER I.

THE ORGANISATION OF ARMIES.

Up to the latter part of the eighteenth century armies were a mere aggregate of battalions and regiments; but as they grew in size this cumbersome arrangement was modified. At first Brigades of infantry were formed—*i.e.*, a number of battalions were placed together under the command of a superior officer and called a Brigade. The next step forward was the formation of Divisions, consisting of two or more brigades of infantry, to which some guns were permanently attached and cavalry afterwards added. Finally, two or more divisions were formed into an Army Corps, sometimes with extra artillery and cavalry.[1]

By this subdivision of command armies have been rendered more flexible, a part can be detached—*e.g.*, a brigade, division, or army corps — without the necessity of adding together artillery, cavalry, infantry, and of organising new staffs, &c., and the issue of orders is facilitated because the commander-in-chief deals only with the leaders of the larger units instead of with all the regimental commanders.

[1] Divisions were formed at the beginning of the revolutionary wars. Army corps were first regularly constituted by Napoleon when he ascended the imperial throne.

There is a consensus of opinion that the division, the smallest unit consisting of the three arms, should be sufficiently strong to hold its own for some time—*i.e.*, to be capable of independent action. Napoleon considered that it should be able to fight unsupported for at least an hour.[1] Modern opinion puts its strength at about 12,000 to 16,000 infantry, somewhat more than the number which the Emperor was accustomed to give it. Such a force can be controlled in battle by one man, as its fighting front will not usually exceed two to three miles, while the length of road it occupies (the fighting portion, about twelve miles) is such that the whole force can co-operate for a given purpose within four to five hours.[2]

Foreign divisions uniformly consist of two brigades, a somewhat awkward arrangement for fighting purposes, as if it be required to form a reserve, as well as a first and second line of battle, it involves breaking up one of them. Theoretically, therefore, a three-brigade division is better. But this, in the case of the Continental unit, would make the division too strong to fulfil the condition of ready concentration for battle. On this score, however, there can be no objection to the third brigade now added to the British infantry division.[3]

Table A gives the composition of the infantry divisions of the principal Powers. It will be seen from it that the amount of artillery with which the division is provided varies considerably. Guns should be as numerous as possible

[1] See his letter to Prince Eugène Beauharnais in 1809.

[2] With modern weapons troops on the defensive, or on the offensive when the attack is not to be pushed home, will be able to occupy wider fronts than has hitherto been the case. We shall not see in European fighting the extreme tactical extension made use of in South Africa, nor even the strategical extension of the Russo-Japanese war; but the fronts of armies will still be far more stretched out than has hitherto been the case. See on this question *post*, chapter xviii.

[3] In the Second Edition it was pointed out that the British of two brigades could well have a third added to it. This has now been done.

without increasing the length of the column of route too much, if the nature of the country in which the fighting takes place allows them to be freely deployed for battle. In northern Italy, or in the south of England, the enclosed character of the ground would prevent large numbers of guns being brought into action; but in open rolling plains

TABLE A.

ADDENDUM.

Since this edition was printed the number of guns and their distribution in the Austrian and French armies have been provisionally altered as under:—

Table A, page 3.			Table B, page 5.	
Country.	Artillery.		Corps troops.	Total fighting strength.
	Batteries.	Guns.	Guns.	Guns.
Austria	8	48	None	96–144
France	8	32	56	120

lowest possible number. For the most vital point in leading modern large armies is early intelligence about the enemy, and these purely cavalry formations are pushed on ahead of the columns for this purpose. When collision between two armies is imminent the bulk of the cavalry is withdrawn from

the front, and is then available either for wide outflanking movements, for use on the field of battle, to pursue the beaten enemy, or to screen a retreat.

It is usually considered that the composition of an army corps should be such that it may be able to deploy for fighting purposes in six or seven hours when marching on one road, while it should be as strong as possible compatible with this limit. This limits the number of infantry to about 25,000. Foreign army corps usually consist of two divisions, each of 12,000 to 15,000 men.[1]

In addition to the infantry divisions of an army corps there is in some cases another important body, the Corps Artillery. This forms a special body at the disposal of the corps commander, which he can use to give a desired direction to the fight or to prepare the way for an infantry attack against any special point. When an army corps is composed of three divisions, it seems doubtful if corps artillery is desirable, involving as it does dividing the army corps into four parts. Under ordinary circumstances two divisions would probably form the first and second lines, the third division acting as an army corps reserve, at the disposal of the commander of the whole, for use in accordance with the requirements of the battle. As it is an axiom not to keep guns in reserve, it would appear better with the tripartite arrangement of the army corps to divide up the artillery among the three divisions, the divisional artillery of the third or reserve division being in this case used in the same

[1] Although this is the theoretical opinion put forward by many foreign writers, there is good reason to believe that the German Army Corps in the next war will consist of two ordinary and one reserve division. With the number of roads available in Central Europe this does not appear excessive, as generally one would be found for each division. The Prussian 'Duties of the General Staff' lays down that no column should exceed fourteen miles, which practically means a division to a road. The same reasoning would lead us to move not more than one on a road, as, owing to the large number of guns and the greater strength of the supply and transport, &c., our division occupies considerably more length than a foreign one.

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the principal European

Total Fighting Strength.		
Infantry.	Cavalry.	Guns.
average about 35,000	varies, average 1800	96–128
33,000[3]	1200	92[4]
25,000	600–900	144
28,700	840	96
32,000	3800	156

he field with three divisions in each
ns.
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number of divisions in
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and the ability of the commanders. Thus Davout, in 1809, placed at an advanced position on the left flank, and on whose skill the Emperor greatly relied, had a larger force than the other marshals. His abilities had been conspicuously displayed in 1806 at Auerstadt.

The French Army Corps in 1870 consisted of four divisions in the case of those commanded by field-marshals; the others of three, excepting the Guard Corps, which had only two.

A certain number of army corps or other organisations (divisions, brigades) placed together form an Army. It is generally considered that three to six army corps, the latter as a maximum, is the best number to employ. More than six army corps would occupy too much length and breadth of country, both on the march and in fighting, to be well directed by one man. Less than three would make it difficult to form an army reserve without breaking up an army corps. Our Field Army consists of one cavalry and six infantry divisions.

In 1870-71 the German First, Second, and Third Armies consisted respectively of three, seven, and six army corps. In the Manchurian war the Japanese armies were formed from divisions, three or more in number.

In the case of an army composed of only two army corps, it is generally considered better to work them as divisions, although in the case of nations which have a permanent peace organisation of army corps, it is probable that these would still be maintained intact. In 1886 the First Prussian Army, which was formed of three army corps, two were worked as divisions, not army corps; but in the 1870 war the First German Army, which at the outset consisted only of the VII. and VIII. Army Corps, the corps organisation was maintained for purposes of command.

It is not the custom now to have an Army Artillery Reserve or an Army Cavalry Reserve to an army. The

word reserve implies that such bodies are kept back in rear of the army, and they are often, therefore, not immediately available when wanted for battle. Thus in 1866 the Reserve Artillery of the Prussian Second Army took no part in the battle of Königgrätz. In 1859 the Austrian Artillery Reserve was not up in time to fight at Solferino. No such body was used by Napoleon: when he wanted additional guns he took them from his Guard, which habitually acted as a reserve to the army, or from troops less actively engaged. Similarly at the battle of Gravelotte the artillery of the X. Corps, which was in reserve on the German left wing, was used to strengthen the artillery fighting in front.

Similar reasoning has led to the abolition of cavalry reserves. It is fatal to the active employment of troops in the front line to give them such a name. In 1866 the Cavalry Reserve of the Prussian First Army followed behind it, and thus lost favourable opportunities of pursuing the beaten Austrians after Münchengrätz and Gitschin. The cavalry corps used by Napoleon in 1812 were by no means successful; they were huge, unwieldy, and difficult to feed. In modern armies, therefore, the cavalry division, usually consisting of three brigades, each of two regiments, is the largest organisation employed.

In the Franco-German war the First and Third Armies had each two cavalry divisions, the Second four, of varying strength. The French Army of the Rhine had a Cavalry Reserve of three divisions; but this, being used in accordance with its name, had practically no influence on the operations.

Table C shows the present constitution of the cavalry divisions of the various European Powers.

The organisations which we have hitherto discussed apply to European campaigns of a normal character, and would be subject to modification in accordance with the nature of the country forming the seat of war.

Thus Austria, France, and Italy have specially organised

brigades on their mountain frontiers to which artillery and sometimes a few horsemen are attached.

Against ill-disciplined troops, which permit a much more extended line of battle to be used when attacking them, it is often desirable to give artillery and even cavalry to infantry brigades. In Goeben's campaign against Faidherbe, before the battle of St Quentin, the 29th, 30th, 31st, and 32nd Brigades had both cavalry and artillery attached to them, thus permitting a more independent tactical action, suited to the long line of battle.

TABLE C.

Country.	No. of Brigades.	No. of Regiments.		No. of Squadrons.		Artillery.	
		In the Brigade.	In the Division.	In the Regiment.	In the Division.	Batteries.	Guns.
Austria	3	2	6	6	36	2	12
France	3	2	6	4	24	2	12
Germany	3	2	6	4	24	2	12
Italy	2	2	4	6	24	2	12
Russia	2	2	4	6	24	2	12
England[1]	4	3	12	3	36	4	24

[1] There are also four field troops of Royal Engineers.

To many of our own campaigns this rule would apply, and a study of the campaigns in which we have been involved in the past forty years will show the necessity for organising our forces against the uncivilised foes with which they usually have to deal, in small compact bodies of the three arms suitable for complete tactical action. In the recent Boer war the army corps formation was retained when the troops were despatched from this country, but was at once broken up on

arrival in South Africa, and throughout the war no larger body than a division was used. It is plain that an army corps is an unsuitable formation against a very mobile enemy who has no intention of fighting pitched battles with concentrated strength, and whose organisation, indeed, does not permit him to do so. The insufficient number of mounted men with the various detached bodies at the beginning of the South African operations was often very detrimental to their efficiency, notably so in the case of the Kimberley Relief Force under Lord Methuen.

In short, it may be said that the nature of the troops employed must vary with the enemy. A mounted foe must be met by mounted men, infantry being required merely to guard the baggage and camp, and the artillery must be very mobile. In a mountainous country where wheel carriage cannot be used, guns must be carried on mules, supplies on pack animals, and cavalry is not required except in very small numbers.

CHAPTER II.

THE EFFECT OF NATIONAL POLICY ON THE CONDUCT OF WAR.

War is the endeavour to gain by violence an object which cannot be attained by other means. During peace nations try to attain their ends by negotiations through their ordinary diplomatic representatives or by means of special envoys; in war they seek to do so by their armed forces.

War is the outcome of the policy pursued in peace, and the leaders of the national armaments have to carry into action the policy which has brought about the situation. To avoid the horrors of war national policy, therefore, should only strive for objects which are right in themselves, and not even for these unless the appeal to arms offers a fair prospect of success. A weak nation should not take up an attitude likely to invite aggression from stronger Powers, nor should it seek by arms to pursue a policy for which its military forces are inadequate. In no case should a nation act in a way which would be morally wrong between individuals. War is or should be the last resort, the *ultima ratio regis;* for whether waged successfully or unsuccessfully, it inflicts great suffering on the peoples concerned in it.

But few nations attain to such a high ideal. Weak nations are sometimes provocative, as the Boers were in 1899. Nor would they necessarily be safe from attack if they were not. The feebleness of Denmark did not save it from the assaults of Germany in 1864. Strong nations are not always forbearing; and between those of fairly equal strength conflicting interests may arise which can only be settled on the battlefield. Sovereigns may be ambitious, statesmen

unscrupulous, or may believe that the loss, which even the victorious side must suffer, will be more than counterbalanced by the material advantages to be gained.

Frederick the Great wanted Silesia and began the first Silesian war.[1] Cavour sent Sardinians to fight in the Crimea, not that his country had any real cause of offence against Russia, but because he aimed at raising its position among nations, and hoped for future aid in working out his scheme for the unification of Italy under the House of Savoy. Napoleon III. desired the Westphalian coalfields, Frenchmen wished for the frontier of the Rhine, and had had their military vanity offended by the Prussian victories over Austria in 1866. Bismarck was not averse to a war with France, and rendered it inevitable by deliberately altering a telegram, because he believed that the conflict would consolidate Germany and aggrandise Prussia.

In democratic nations the people are supposed to be the arbiters of their own destinies, but they are, as history shows us, often swept along by a sudden wave of sentiment which may hurry them into a position where war becomes unavoidable. Countries in which public opinion has great power are much more liable to be affected thus, than those in which the Government is in the hand of a few individuals placed above such influence.[2]

[1] Macaulay, in his essay on "Frederick the Great," writes: "The evils produced by his wickedness were felt in lands where the name of Prussia was unknown; and, in order that he might rob a neighbour whom he had promised to defend, black men fought on the coast of Coromandel, and red men scalped each other by the Great Lakes of North America." The King himself, in speaking of his reasons for entering on the campaign, said: "Ambition, interest, the desire of making people talk about me, carried the day, and I decided for war."

[2] These views were remarkably confirmed by the Imperial German Chancellor, Count von Bulow, in his speech to the Reichstag, made the 10th December 1900, on the subject of the refusal of the Emperor to receive ex-President Kruger. He stated: "It is a duty of the Government to prevent these international relations from being unfavourably affected in any way, whether it be by intrigues or by demonstrations. And this is a duty which eminently concerns the Government in our times—I once alluded to it before in the Budget Committee—when nations are plunged into war by unreasoning outbreaks of popular passion, by passionate excitement of public opinion, more easily than in the days of the old Cabinet politics when wars were brought about by the ambition of monarchs or by the intrigues of Ministers."

The war of 1898 between the United States and Spain arose from the sentimental sympathy of a republican nation with the citizens of Cuba in their struggle against an oppressive government. France, in which the blessing of a free press is fortunately tempered by a highly centralised form of government, might, if the blatant orators of a certain class of newspapers had had their way, have gone to war with this country on two occasions within the last few years for reasons which can only be described as absolutely inadequate.[1]

The more autocratically a nation is governed the more continuous will its policy usually be. An autocratic ruler, although not independent of his environment, is less affected by it, and is more likely to influence the current of politics by impressing his will on his statesmen and even on his successors. The so-called testament of Peter the Great may not have been written by him, but the unwavering pursuit by Russia of the policy therein indicated is at any rate a tribute to the genius of the man who composed this remarkable document. The steadily pursued action of Bismarck, which united Germany, would have been impossible in England, where the system of party government leads to sudden changes. Within the last twenty years we have seen two expeditions—the Transvaal in 1881 and the Egyptian in 1884—brought to a standstill and our policy suddenly reversed. Yet in both cases war was eventually found inevitable. Our policy with regard to Afghanistan has repeatedly varied and seldom remained the same for any lengthened period; yet the problem to be solved has not changed.

But whether national aims are persistent or the reverse, it is the soldier who has to do the fighting which ensues, and too often he finds the prize of his dearly won victories flung foolishly away to satisfy the exigencies of political party. The military leaders are rarely asked at the end of the war as to the terms which should be imposed on the adversary. It is more probable that it was Lord Castle-

[1] Siam, Fashoda.

reagh, not the Duke of Wellington, who gave away Java and handed back to the French their Indian possessions at the Congress of Vienna. Since the Treaty of Utrecht there have been at least three occasions on which the objectionable position in Newfoundland, now fortunately put an end to, might have been terminated, and the fact that this was not done is striking proof that neither sailor nor soldier was consulted on the matter.

It must be admitted that if the conduct of war depended solely on military considerations, the task of directing it would be shorn of half its difficulty. The influence of the unprofessional person is felt not only from the fact that he shapes the policy before hostilities break out, but that he very often also influences their conduct. History shows us many occasions in which the ineptitude of statesmen, ignorant of things military but possessing the power to interfere, have done so and caused defeat and ruin. The singular fatuity of the Aulic Council is fortunately unique, and even in the times in which it was responsible to no one but the Emperor, caused its downfall. In 1870 the French Government forced MacMahon to attempt the celebrated flank march to relieve Bazaine when he had been shut up in Metz,—a military manœuvre foredoomed to failure, and which terminated so disastrously at Sedan. Again the contest waged at the royal headquarters in Versailles between the *einschiessers* and the *einschliessers*—*i.e.*, between those who wished to bombard Paris and those who knew that at the time only blockade was possible—in which Bismarck and others who did not understand war were opposed to Moltke and those who did, was a dispute of the character which constantly arises between civilian statesmen and military officers.[1] The fact is, Bismarck had not the faintest conception of the material difficulties of bombardment, no

[1] Those who desire further information on this subject should read Moltke's views as put forward in his 'Militärische Correspondenz,' Part III. p. 417, and Bismarck's account of the same incident in his memoirs, translated by A. J. Butler, vol. ii. pp. 107, 108. This book, entitled 'Bismarck, the Man and the Statesman,' is an excellent work to read on the question of the influence of politics on war.

idea of the time needed to bring up guns and ammunition by road before the railway was available, and no notion of the vast number of shells required to materially damage so large a town as Paris, yet he did not fail to cavil at Moltke's decision not to commence it until proper preparations could be made for continuously carrying it on.

Among Continental nations it would be rare to find statesmen entirely ignorant of war, as universal service ensures that they shall have had some military training. European armies are not like our own, merely a small fraction of the population, but are the whole manhood of the nation in arms, so that military considerations are better understood by the citizens, because they are more familiar with them. Hence from a military point of view the shapers of the national policy are better trained. In England we do not possess this advantage. Soldiers are not consulted with regard to the organisation of the army, or, if consulted, their views are apt to be put aside in favour of the crude propositions of some newspaper writer or ignorant amateur. Our records at the beginning of the nineteenth century teem with instances of the military incompetency of our rulers. Unable to grasp the elementary fact that concentration of effort is supremely important in war, they frittered away our strength in countless minor expeditions of no value for their great aim, the overthrow of Napoleon, but which cost the country millions of money and thousands of lives. The expeditions to South America, the second expedition to Egypt, the dismal failure at Walcheren, the aimless wanderings of Bentinck in Italy, were of no possible advantage to the main object of the war. But the diversion of troops and treasure from Wellington in the Peninsula, where he sadly needed both, prolonged the struggle with Napoleon at least one year and possibly two. The history of the war in Spain is one long record of the folly of British administrators, which was only overcome by the iron will and steadfast purpose of the great Duke.

The point of view from which a nation regards military affairs has an important effect on its organisation for war.

The system of universal service, by which practically the whole manhood of the race is trained to arms, has had a fourfold result. It has enormously increased the size of armies, and thus enables a nation to defend itself with its whole strength, provides able officers and non-commissioned officers, and, most important perhaps of all, makes the whole nation understand what war really is. On the Continent we find the possibility of war the constant concern of the Government. There railways are constructed for strategical purposes only; while the ordinary stations, at points where troops are likely to entrain and detrain, have specially contrived platforms and other facilities. The rolling stock is constructed not merely for peace requirements, but with a view to the conveyance of men, horses, and military vehicles in time of war. In England this has been lost sight of entirely. In Russia the railways have been constructed of a different gauge from those laid down in the neighbouring States, to prevent the rolling stock of Central Europe being used on them. The war-chest of Germany—*i.e.*, the vast amount of gold coin stored up to be expended in mobilising the army—is unknown in this country. The British Empire is carried on as if war were unknown, with the result that when it becomes imminent money has to be expended like water to make up deficiencies which no other first-rate Power would allow to exist for a moment, and which would not be tolerated, and do not exist, in Roumania or Switzerland.[1]

It is obvious that a state in which rulers, administrators, and people are familiar with the requirements of war, is more likely to be successful in an armed struggle with an opponent than one in which this knowledge, so necessary for success, is almost entirely absent.

[1] See the enormous deficiency in stores to which attention was drawn by General Sir Henry Brackenbury, the Director-General of Ordnance, in December 1899. A Committee was appointed to inquire into the allegation, at the head of which was a Treasury official! It would be an interesting task to ascertain the number of millions which have been hurriedly and often badly expended in war to make up for Treasury parsimony during peace.

In Germany the Emperor is the supreme head of the army, not in the theoretical way in which the Sovereign is the head of the English army, but as the actual working head. He is also the actual working head of the civil Government. No monarch since the days of Napoleon I. has ever been more favourably placed for the conduct of war. The whole resources of the nation are at his disposal, he is unhampered by constitutional considerations which would affect an English Government, and he wields an arm which, seasoned by a century of existence and the unceasing adoption during that time of every improvement, has reached a pitch of perfection hitherto unrivalled.

In this country it is likely that an officer entrusted in war with the supreme command of our forces would be fairly untrammelled in his leadership. The conduct of the actual operations would probably be left entirely to him. But the weapon given him to wield would be none of his forging. It would represent what the peace administrators of the army had succeeded in obtaining from the Government. Soldiers have cried aloud, and cried in vain, during the past fifty years for some approximation between the numbers of the army and the duties required of it. Yet not even the obvious lesson of the struggle in South Africa has brought home either to rulers or people any just appreciation of the liabilities we have incurred by our world-wide empire or of the armaments necessary to meet them.

Nations become war-weary. The Peace of Utrecht, from which England derived little compensation for the sacrifices she had made, was looked upon as desirable by the people, who were tired of the conflict which had lasted so many years. The French people in 1815 submitted to the Bourbons being replaced on the throne, not because they regarded them with any peculiar affection, but because they knew that Louis XVIII. would give them rest. Napoleon III. brought the Crimean struggle to an end when he thought he had obtained sufficient credit from it to sustain the traditional military glory of his name, and before the nation had time to weary of the struggle.

Strategy is largely affected by moral considerations. Of two different courses—one of which might give important political, the other more purely military, results—it will sometimes be more advantageous to choose the former, because of the greater effect it will have on the course of the war. The object of war is peace on the victor's terms; and to attain it, it is necessary to bring home to the hostile nation the futility of resistance. The right method to pursue is that which soonest demonstrates the uselessness of further opposition, and campaigns, therefore, should be conducted with this end always in view. Hence during the operations, while military reasons will usually play the chief part, moral or political considerations will not be without influence.

When Khaled, the general of the first Khalif, was conquering Palestine, he preferred "the moral advantages of the capture of Jerusalem to the military advantages of the capture of Cæsarea."[1] The former dealt a blow at all Christendom, the latter would have been but an incident in the war.

Lincoln, in 1862, during the operations along the Yorktown Peninsula, was quite unable to recognise the fact that the true defence of Washington was to push home the attack on Richmond. He paralysed M'Clellan because he insisted on using a ridiculously large force against Jackson in the Shenandoah Valley, for fear the latter might move against the Federal capital.

National policy, then, affects the conduct of war, because it influences the organisation of the national forces, the point of view from which they are regarded by the people, their employment in armed conflicts with other races, the actual procedure followed in the struggle, and the conditions of peace exacted at the end of hostilities.

[1] See 'The Conflict of Religion and Science,' International Scientific Series, p. 90.

CHAPTER III.

THE MAIN PRINCIPLES OF STRATEGY.

THE art of war is usually divided into two parts—strategy and tactics. Strategy deals with the military considerations which determine the choice of the offensive or defensive, the selection of the country in which to fight, the objects against which the armies should be directed, and embraces the Plan of Campaign or General Idea which dominates the conduct of the operations. Broadly speaking, therefore, strategy is concerned with the movement of troops before they come into actual collision, while tactics deals with the leading of troops in battle, or when battle is imminent. Tactical victory may be the prelude to strategical success, or may be the culmination of successful strategy. In the second case the aim of strategy has been gained for the time being; in the first it is attained by placing the victor in such a position before the battle as will enable him to gain the greatest effect possible from his tactical success when won. The latter object is gained by—

I. Ensuring superiority of numbers when striking a tactical blow.

II. Threatening the communications of the hostile army with its base, while obviously if this be advantageous it follows that the threatening force must protect its own.

These two principles form the basis of all strategical manœuvres.

The first of them is self-evident,—the value of superior numbers requires no demonstration. Other things being equal, 30,000 will defeat 20,000 men, and a marked characteristic in the conduct of war by great generals is that they always succeed in placing superior numbers at the point of actual collision, even if inferior to their opponents over the entire theatre of war.

Superiority in numbers may be gained in two ways:—

(1) The forces brought against the enemy may exceed his when united, or

(2) It may be possible to take advantage of his dispersion to concentrate in superior strength against different fractions of his forces.

So far as (1) is concerned it is plain that superiority may be due to—

(*a*) A more numerous army.

(*b*) Better organisation, enabling the one side to be ready before the other.

(*c*) The possession of superior means of transport, thus facilitating the concentration of the army before attacking the enemy—*i.e.*, more numerous or better railways or roads, or a country more favourable for the movements of troops. In the case of over-sea transport the command of the sea and a large mercantile navy adapted for the conveyance of troops and stores.

With regard to (2) superiority may be gained—

(*d*) From the enemy's own dispositions, or because misled by feigned attacks or false intelligence he may direct a part of his forces in a wrong direction.

(*e*) By penetrating the enemy's strategical front, thus dividing his force into fractions which can subsequently be defeated by successive concentrations against them.

(*a*) (*b*) and (*c*) may be said to be initial advantages

existing at the time war breaks out, and when it is too late for the weaker side to repair the disadvantages their absence entails.

They were all three possessed by the Germans in the war against France in 1870. For—

(*a*) They were able to put 450,000 men in the field against the French in fourteen days, whereas the latter could in the same time only muster 220,000 on the front of operations.

The Russian-Turkish campaign of 1877-78 is also another example of the folly of entering on a war with insufficient numbers. The Russians commenced operations with about 200,000 men, against which the Turks were able to bring 250,000. The former successfully crossed the Danube, and a portion under Gourko made a dash across the Balkans. It was the intention of the Russian headquarters to keep off the Turkish troops on either flank from the direction of Widdin and the Turkish quadrilateral (Silistria, Rustchuk, Shumla, and Varna) by two retaining forces—namely, the 9th Corps on their right, the 11th, 12th, and 13th on their left. There were, therefore, only the 4th and 8th Corps and some details available to press forward on Constantinople against a force of at least double the number. This faulty General Idea, coupled with the successive defeats the Russians suffered at Plevna, brought the campaign to a standstill until much larger numbers were mobilised and brought down to the front.

At the outbreak of the South African war we sent far too few troops to deal with Boer forces, nor was their composition suited to the enemy they had to deal with. The student of British military history is well aware that we rarely commence a war with adequate force. The American Revolution and the Peninsular War are two excellent examples of the inability of our statesmen to appreciate the elementary military truth that appropriate numbers are required for success.

(*b*) The German organisation was infinitely superior to that of their opponents. They had a carefully thought-out plan of mobilisation based on an absolute localisation of every unit, so that each reserve man knew where to go, and the whole of the material was stationed at the places where the troops were embodied. On the other hand, in France the men had to go to depots and then join their units, which had been hurried up to the frontier the moment war was declared before being put on a war-footing. The material needed by the field army was kept at central depots instead of being in possession of the troops in peace-time.

(*c*) The railway system of Germany permitted nine lines to be employed for the strategical deployment, whereas in France only two groups of railways were available, the one ending at Metz, the other at Strasburg.

(*d*) A weak general acting on the defensive may endeavour to guard a long line of country by dispersing his forces along it, feeling uncertain as to what the probable lines of operations of his opponent will be. This was the system adopted by Joseph in Spain in 1808, and which called forth Napoleon's animadversions: "After ten years of war to return to such stupidities, . . . the army seems to be commanded by postal inspectors." Again, in 1814 he said that the cordon system "is good against smugglers but has never succeeded in war." In his very first campaign (1796 in Italy) he concentrated his own troops, and then drove apart the more scattered Austrian and Sardinian forces.[1]

(*e*) Napoleon's campaigns of 1796 and the first part of 1809 are both striking examples of the brilliant results which may be obtained from strategical penetration. These are due not merely to the fact that the victor can act in succession with superior numbers against the separated portions of his opponent, but also because one or other or both of the latter may lose its line of communications.

[1] See Part II., Campaign of 1796.

The second principle requires somewhat longer notice, as its truth is not so self-evident.

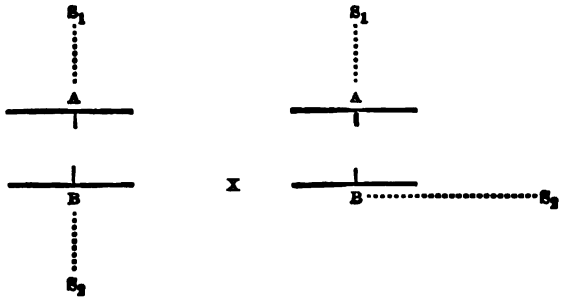
An army, whether it number 20,000 or 100,000 men, represents a large increase to the population in the region in which it is operating. If it be in a hostile land it is evident that unless it took measures to supply itself with food it would soon suffer from deprivation. Experience shows that in the most densely populated and highly civilised countries it can only live on the supplies immediately to be found in the possession of the inhabitants if it move on day by day. Even this measure of sustenance is impossible unless it marches on a broad front, and it is considered that a force of 30,000 men requires under such favourable circumstances a front of five and a depth of nine miles. But if it were to halt for any time, or if the country were not rich, provisions must be brought to it from outside the area it occupies. The theatre of war cannot be entirely relied on for this purpose, and therefore steps are taken to bring up provisions from the base to the army, and as these are used up they are replaced by further supplies obtained from the same source, supplemented by purchase or requisition from the country in which the troops are operating. This was the method pursued by the Germans when besieging Paris.

But under any circumstances reinforcements, ammunition, clothing, and the various materials of war which an army requires, can only be got from the country to which it belongs. It follows, therefore, that the means of communicating with the latter must be kept open if the force is to maintain the field. For when beaten it naturally retreats in the direction in which it can best make good its losses in warlike stores, equipment, food, and men. Secure transit along the line, therefore, which connects an army with its base—*i.e.*, the Line of Communications—is evidently of vital importance. Should movement along it be stopped the force can no longer get at its resources, and may even

suffer from starvation if unable to live on the country. This renders it necessary when operating against an enemy to cover the line of communications back to the base, and this is plainly best done by acting perpendicularly to it, and so that the centre of the army is as shown in fig. 1. To form to a flank, unless tactical conditions offer the chance of a great victory, is therefore dangerous, and to be avoided.

Referring to the diagrams below, if A and B be two armies, S_1 and S_2 their bases or sources of supply with which they are connected by the dotted lines forming their lines

Fig. 1. Fig. 2.



of communication, it is evident that in fig. 1 if A defeat B the latter will simply fall back on S_2 and neither side has any strategical advantage, as each equally covers its base. But if the armies be situated as in fig. 2, in which case B is parallel to its line of communication, then if A defeat B the latter will be forced back beyond the road leading to S_2 and will be cut off from its source of supply. On the other hand, if A be defeated it can still fall back on S_1. In this case A has a great strategical advantage over B, for it covers its own communications while threatening those of its adversary. Defeat in the first case would not necessarily mean to B more than the loss of men and material, in the second it might lead to absolute disaster. It will further be noted that in fig. 2 it will be more advantageous for the A army to turn the inner flank of B—*i.e.*, the one which is nearer

to its base—as in that case it would more effectually sever B's communications. If the outer flank were turned, B might still be able to retire along them, though possibly a more circuitous road would have to be made use of. The inner flank of B, as the more important, is called its Strategical Flank.

It is plain, then, that the most effective strategical manœuvres are those which strike at the enemy's lines of communications, and thus cut off his army from its source of supplies. In the history of war it will therefore be found that the efforts of great commanders have been devoted to this end when acting on the offensive, while the side on the defensive makes every effort to thwart the intention of the assailant. It may be that for a time a commander will be content with pushing back his adversary, but sooner or later he will aim at his communications by

1. Pressing him back on some position where he can be surrounded.
2. Penetrating his force and then crushing the portion cut off.
3. Turning his flank, thus threatening his communications and compelling him to retreat eccentrically —*i.e.*, in a direction not coincident with his line of communications.

The value of a Flank Position—*i.e.*, one in which an army takes up a position such as A has in fig. 2 on the flank of B's line of operations from S_2 towards X—is therefore great. The commander of B would not be justified in advancing beyond his adversary without defeating, or at any rate holding him. If he did so A would at once come down and intercept B's communications.

From what has been said it is plainly manifest how important a part strategy plays in war. It teaches the value of concentrating our forces so as to gain the power of imposing our will on the enemy, and the necessity not merely

for defeating the foe but of inflicting defeat under conditions which shall be as harmful as possible to him, while it shows that the strategical situation should be arranged so that if beaten, either in the tactical collision which preceded the strategical operation, or in that which was intended to set the seal to previous strategy, any unfortunate consequences arising from defeat in battle may be reduced to a minimum. Put, then, in the simplest terms, we should seek to—

1. Concentrate superior numbers against the enemy.
2. Attack his communications—*i.e.*, employ our massed forces in the most efficient direction, while covering our own.

Admitting the first of these two principles, it is plain that any diversion of troops from the main objective is to be deprecated. Detachments against secondary objectives, therefore, should never be undertaken except with some very definite object. For instance, to reduce a fortress, to seize important localities, such as large towns or places at which the enemy has collected magazines, or to create an important diversion, by aiding insurrections, as we did with our expeditions to the coast of Brittany at the early part of the French Revolution. For any of these purposes they may be useful, but *only if they compel the enemy to withdraw larger forces from the main theatre of war.* As a general rule, unless the object is very definite and weighty or the strength required is small, all detachments are a mistake, as they diminish the main force.[1] Jackson's operations in the Shenandoah Valley were useful, our Walcheren expedition in 1809 a mistake.

[1] Troops are of course required to guard the line of communications, but these would, as a rule, be furnished by special troops and not made from the field army.

CHAPTER IV.

THE EFFECT ON STRATEGY OF UNIVERSAL SERVICE AND MODERN INVENTIONS.

THREE great differences distinguish the international struggles of to-day from the wars which took place in the days of Napoleon and Frederick the Great. These are:—

1. The general introduction of universal military service, which has greatly augmented the numerical strength of armies, rendered war far more costly, and made much more difficult the task of manœuvring and feeding the huge forces put in the field.
2. The enormously increased facilities for moving troops and supplies, owing to the introduction of railways and steamers.
3. The far greater speed at which intelligence is obtained, due to the rapidity of communication by means of railways and the telegraph, electric or wireless, combined with the vast increase in the number of newspapers, which has resulted in greater publicity and considerably increased difficulty in keeping plans and movements secret.

Continental nations, basing their organisation on the system which Prussia introduced after the disastrous war of 1806-7, have not shrunk from imposing on their whole manhood the obligation of bearing arms. Thus when mobilised for war, the major portion of the male sex is diverted

from the ordinary work of production and led against the enemy. This involves great pecuniary loss, which is increased by the necessity for paying and maintaining the armies in the field. Were the war continued for anything like the period which characterised the struggles of the days of Frederick, victor and vanquished would alike be bankrupt. Every effort, therefore, is made to bring the conflict to as speedy a conclusion as possible.

War is no longer a game of chess, as it was in the time of the great Prussian monarch, a series of methodical manœuvres by which an adversary sought to occupy the territory of his opponent and thus compel him to make peace. Then the want of roads made movements slow, battles were infrequent, and campaigns, owing to the bad and few communications and the consequent difficulty of feeding the troops, were not carried on through the winter months. *The fact was not grasped that the true way to obtain victory over an opponent is to disperse and crush the forces he can put into the field.* Massenbach eulogised Prince Henry (the brother of Frederick the Great) for having gained victory without a battle!

As armies increased in size the necessity for quickly terminating the struggle, owing to its costliness, became more and more evident. It is true that Marlborough showed, in the Blenheim campaign, that a far greater effect could be obtained from the ruin of the enemy's army than from the occupation of his country. But this principle was first elaborated and perfected by Napoleon, and in his time we no longer see war a succession of sieges, the object of which was to dominate certain tracts of country or to command roads: his object was always to destroy the field armies of his foes, and thus render them incapable of opposing his will. The campaign of 1805, which was terminated by the battle of Austerlitz, lasted only a hundred days, but laid Austria at his feet, a suppliant for peace. His recognition of this fact is

his best title to be regarded as the greatest military genius the world has seen in modern times. His defeat in 1813 was largely due to his forgetting it and frittering away a large portion of his soldiers in the fortified towns of Germany, thus depriving himself of forces which would have been invaluable to him in his campaign against the Coalition, but which, shut up in fortresses, had little or no effect on the struggle. They were blockaded by inferior troops and fell in course of time into the hands of their adversaries.[1]

If, however, for the reason we have given, it was desirable a hundred years ago to crush the adversary's field armies, their increase in size now renders it still more desirable, because the moral effect on the defeated nation is so much greater than when the army represented but a small part of it. The first and main object of modern war, therefore, is to crush them, and thus deprive him of all further power of resistance. The occupation of the enemy's country, and of important political centres in it, like the capital or other large towns, arsenals, dockyards, or sources of military supply, will still be made use of, and he will as before be compelled to support the invading troops and provide forced contributions either in money or kind; but all these measures are only possible when his field armies are beaten. Hence it is that war is more than ever an operation of destruction, directed against the men and material of the opponent with the object of producing in him that mental state which defeat, loss of life, and destruction of property produce, and which ends in his suing for peace, while the enormous cost of the struggle makes both sides strain every nerve to come as rapidly as possible to a decision.

The size of armies due to universal service has also affected strategy in another way, inasmuch as it is more difficult to

[1] In 1814, after peace was declared, about 200,000 soldiers returned to France who had been taken prisoners in previous campaigns.

manœuvre a large than a small army. The lightning-like strokes by which Napoleon in 1796 separated and defeated the Austrians and Sardinians are impossible under modern conditions, because the forces employed would occupy such a large extent of country that they could not be moved hither and thither like the few thousands which he then handled.[1]

Moreover, large forces cannot when concentrated live on the country. This became evident in the fighting which took place in the early days of the French Republic. For although the French armies were numerically strong, being brought to the standard by the cry, "*La Patrie est en danger*," they were extremely ill-organised, and the wars were indecisive, mainly because the troops had to spread over a large extent of country to live, not being fed from magazines or from supplies brought up along the lines of communication.

The wars in which Napoleon led large numbers were 1805, 1806-7, 1809, 1812, 1813, 1814, 1815. Of these, the first had a period of active operations which lasted little more than three months, the second nine, the third four, the fourth seven, the fifth seven, the sixth three, the seventh only six weeks. Contrast the duration of these with those of Frederick, compare the number of battles the Emperor fought with the number the King engaged in, and the enormous gain in rapidity and destructive defect will at once be evident. The Seven Years' War fought by Frederick was formed of several campaigns with distinct intervals between them. Of the seven wars of Napoleon given above, six consisted of a single campaign; one only, that of 1806-7, may be said to embrace two, and even in this case the period between them was of the briefest duration. In the Franco-German War seven great battles were fought within one month, with the result

[1] The total force with which he entered on this campaign was only some 37,000 men—*i.e.*, the strength of a modern army corps.

that practically the whole regular army of France was destroyed or shut up in a fortress from which it emerged only to go to a German prison. The gain in rapidity of decision is plainly enormous.

Napoleon has been credited with the maxim that "War should support war." This in a measure is true; but he made war support war by an organised system, and not by the mere rude method of quartering his armies on the inhabitants — in fact, whenever he was engaged with large numbers he was most careful in organising his line of communications and constructing magazines. For instance, in 1805, the first campaign of the Grand Army, which numbered some 219,000 men, such a force as had never been seen before under the command of one leader, he took the greatest care to organise his magazines and lines of communication. He did the same in all his subsequent wars. In 1806 he began with about 190,000 men; in 1809 he had 180,000, and in 1812 about 500,000: in each instance it will be found from his correspondence how much he thought about their sustentation.

But in all these wars he laboured under one great difficulty—it was impossible for convoys of wheeled carriages to keep up with his armies when they marched rapidly. In the 6th bulletin of the Grand Army (1805) he quotes a saying of his troops "that he had made war in a new fashion; not with bayonets, but with the men's legs." But the result of the rapidity of his movements was that the privations from which the armies suffered were very great, and he himself, writing on the subject, said: "We have marched without magazines, compelled by circumstances. We have had a season extremely favourable for this purpose, and, although we have been continually victorious and found vegetables in the fields, we have suffered much. At a time of year when no potatoes could be found in the fields, or if the army had suffered reverses, the default of magazines would

have led to the greatest disaster."[1] Prophetic utterance! For it was the default of magazines and the impossibility of furnishing supplies to the army which caused the great disaster of 1812.

In this year Napoleon had to deal with a larger army than ever, amounting to about half a million of fighting men. The country was sparsely inhabited, producing little food, and this had been largely removed by the order of the Russian Emperor. There was, indeed, not much left except the standing crops, on which the cavalry fed their horses, losing thereby three-fourths of their strength. Napoleon marched from the Niemen to the Dwina, a distance, roughly speaking, of about 220 miles, in five weeks, and lost in that time 130,000 men from his army without fighting a single battle of any moment; and these men disappeared and were lost to the Grand Army, because, while the heads of the columns could feed to some extent on the country, while the rear could be supplied by the wheeled carriage convoys, the centre absolutely starved and disappeared from the colours, spreading over the country to obtain food.

The supply of troops by road then at the beginning of the nineteenth century was a source of great difficulty, and constant efforts were made to secure other means, so that the choice of a line of operations depended then as now largely on the facilities which it offered for supply. For instance, Napoleon, in the campaigns of 1805 and 1809 against the Austrians, laid the greatest stress on the value of the Danube. Speaking of the enormous advantage the river gave to an invading army, he said: "By it we have a line of communication along which men, ammunition, and supplies generally can be brought with perfect safety, so that they can be up with the troops while marching into the country."

[1] Each soldier carried four days' bread, and four days' biscuit was supposed to be carried in waggons. But neither the biscuit was available to any adequate extent, nor the waggons to carry it.

It has often been asked why, in 1815, Wellington was so jealous of his right, and why he left 18,000 at Tubize and Hal. Although the actual leaving of them there during the fighting of 18th June may be open to comment, originally there was very good reason for dreading an attack on his right. For his two lines of communication with England were, the one by Antwerp and thence by road to Brussels, the other by sea to Ostend, and from there to Ghent by canal. Now the Scheldt is a difficult river for sailing-ships to navigate, and it was undesirable to depend absolutely on it. But he could rely upon the route to Ostend by sea, and thence by canal to Ghent which was near to the right of his army. By using the latter line he obtained secure and easy water communication to within a short distance of his front, whereas from Antwerp he would have had to make use of a long line of road by which it was far harder to move any large amount of supplies. To have been cut off from Ostend would therefore have been a very serious inconvenience.

At the beginning of the last century, then, we see both these great commanders avoiding the difficulties of road-supply by using water carriage when possible.[1] In 1884 the troops could never have reached Korti had we not been able to move them up the Nile.

With regard to the second point, if the difficulties of moving and supplying large forces a hundred years ago were great, what would they be now if only the then existing resources were available to deal with the greatly increased numbers of modern times? If war be declared between France and Germany to-morrow, twenty army corps on either side will at once enter into conflict. These twenty army corps represent on either side, roughly speaking, nearly a million of men, and the total strength which these nations

[1] In the case of a war fought in Germany or Russia, the direction of the main rivers, which are perpendicular to the lines of operation, do not facilitate either movements or supply.

can put into the field may be put down as about three millions each. It would be simply impossible, with the resources of olden times, to do anything whatever with these masses of troops. To concentrate them on the frontier now takes from a week to a fortnight. At the beginning of the century it would have taken from one to two months. Moreover, under the old condition of transport they could never have been supplied by road when in the field, nor could they have lived on the country when concentrated. It is the introduction of railroads which has made modern large armies a possibility, for they alone enable the general to mass them for striking purposes, and to keep them properly supplied.

In the Manchurian war the slowness of the Japanese advance was very largely due to the difficulty of bringing up supplies to feed their army. The only railway available being of a different gauge to the Japanese lines, it was necessary to lay a third rail before their rolling-stock could be used on it.

To give a graphic idea of what a railroad can do, it may be stated that, practically, one railway train will carry the supplies of an army corps for a day. Moving at the rate of only 10 miles an hour, 240 miles can be covered in twenty-four hours, thus enormously extending the area from which supplies can be obtained. One railway in 1812 would have saved Napoleon from disaster. The conquest of the Soudan was rendered feasible by the railway constructed to Berber.

The value of steamers for the transport of troops across the high seas is also evident. A modern liner can take a couple of battalions; two can take three or four batteries. Many of the transports used to convey troops to the Peninsula were not much bigger than coasting colliers. Sailing vessels were always uncertain in their movements, being dependent on the wind. Steamers move with such precision that the duration of the transit can be accurately calculated. Their value was well exemplified in the expedition to South

Africa—the largest transportation of troops over-sea the world has ever seen.

With regard to the third point—viz., the increased facility with which information is obtained. In the beginning of this century the modern newspaper was non-existent and the "Special Correspondent" unknown. Special Correspondents are often filled with the best intentions; but they cannot help sometimes letting out facts which the commander would rather not have published, and, under any circumstances, even with the most rigorous censorship, the general course of the operations of armies is made known in a way that was impossible before the present development of newspapers and the invention of the telegraph. Moreover, the latter brings information so rapidly and from such immense distances, and by such circuitous routes, that there is no longer any possibility of keeping movements secret for more than two or three days.[1]

In 1800 (Marengo) the French army, which was called the Army of Reserve, was assembled at Dijon, with the view of crossing over the Alps into Italy. Napoleon did his best to turn attention from this force, and succeeded entirely. He led it over the St Bernard and was in Milan before his enemies appreciated what he was about. But it is incredible that, under modern circumstances, the Austrians would not have known what was going on in France, and it is absolutely certain that the moment the French debouched into Italy, the former would have been perfectly well aware with whom they had to deal.

We have in the Franco-German war many examples of

[1] It is true the Japanese succeeded in maintaining absolute secrecy as to their movements during the late war. But Manchuria is not Europe. There were neither newspapers nor telegraphs, and the whole of the channels of local communication were in the hands of the Japanese. This would not be the case in a Continental campaign. On the other hand, every naval movement was known in Europe as soon as it took place. This shows that unless the cables are commanded naval operations are difficult, if not impossible, to conceal.

how information is spread. When the Third Army, with the Army of the Meuse, was advancing on Chalons towards Paris, the exact position of MacMahon's army was unknown. But, little by little, information was obtained. On the 24th and 25th August the headquarter staff began to get knowledge of it from the French newspapers. A letter also was captured which had been sent out by an officer in Metz, and which said that MacMahon would advance to relieve the army shut up there. French newspapers, moreover, stated generally that an army was being organised at Rheims, that it was impossible to leave Bazaine in the lurch, and that the efforts of this army must be directed to relieve him and to raise the siege of Metz. Finally, on the 25th a telegraphic despatch of the 23rd, sent from Paris through London, reached the headquarters of the army, stating that MacMahon was endeavouring to form a junction with Bazaine.

Similarly the attempt to relieve Belfort was, to a large extent, revealed to the German headquarters by telegrams sent to Switzerland by German agents in France, and thence to Versailles. All this proves how much more publicity there is about the progress of a war now than was the case at the beginning of the nineteenth century.

We thus see how modern strategy has been affected by these factors :—

1. The size of modern armies.
2. The freedom of communication conferred by the application of steam to land and water transit.
3. The facility with which information is obtained.

When reading military history it is necessary to remember these modifying factors in deducing rules for guidance in modern warfare from the campaigns of the past. With the study of the movements of great commanders must be borne in mind how modern conditions would have affected them: a mere dry-as-dust knowledge of ancient records is worthless as a military education.

CHAPTER V.

CHOICE OF THE OFFENSIVE OR DEFENSIVE — VALUE OF THE INITIATIVE — CONSIDERATIONS WHICH AFFECT MOBILISATION — STRATEGICAL DEPLOYMENT AND MOVEMENT OF ARMIES AFTER CONCENTRATION ON THE FRONTIER — ADVANTAGES AND DISADVANTAGES OF THE OFFENSIVE OR DEFENSIVE — THE OFFENSIVE MUST BE PREPARED FOR IN PEACE.

HISTORY shows us that at the commencement of a war the opening movements are often largely influenced by political considerations. Thus a nation fully convinced of the righteousness of its cause may prefer to assume a defensive attitude until hostile acts clearly show the enemy's intention, and justify the assumption of the offensive. This was the case in 1866 when the King of Prussia, although ready to advance into the Austrian dominions, did not move his troops until war was declared against him. The Confederates at the early part of the Secession War kept to the defensive, as they declared they only sought their independence. The Prussians in 1806, to cover their somewhat lukewarm ally Saxony, took up a position in advance of the Elbe, the natural line of defence for the old Prussian dominions against a French invasion.

It will be rare in the future to find Ministers acting with the decision of Canning, who in 1807 seized the Danish fleet on account of the secret article in the Treaty of Tilsit, by which it would have been placed at the disposal of Napoleon. On the contrary, in the summer of 1899 we made no adequate preparations to meet the military situation

in South Africa, although it was patent to all that the Boers were arming for offensive purposes.

The Japanese, on the other hand, took the initiative in 1904 because they perfectly well understood that the Russian negotiations had no other aim than to gain time,[1] that war was inevitable, and that it was better for them to begin it before their opponents were ready.

The experience of many centuries proves that the general who takes the initiative in strategical operations gains much by doing so. The offensive ensures to him for a time liberty of action, and compels the adversary to conform to his movements. He is able to march at once towards the proposed objective, often to surprise his enemy before he is concentrated, and to strike him at a point where he can inflict on him great harm. It is his will, not his opponent's, which decides the course which the operations take. The offensive, moreover, carries the war into the enemy's country, raises the enthusiasm of the troops and saves the nation, which takes it, from the evils of war in its own land. It has been nearly always assumed by great generals, unless some special reason made it inexpedient, and numerous examples show the advantage to be gained from it.

Thus in 1704 Marlborough took his army to the Danube, because he knew that by defeating the French and Bavarian forces there he could produce a much greater effect than by any operations carried on in the Palatinate.

Napoleon in 1800 carried his troops across the Alps, and aimed at the Austrian communications with the Tyrol, since to cut these was to compel the Austrians to fight to recover them, when, if beaten, they were lost and Italy regained for the Republic.

[1] The objections put forward by the Russians to the Japanese action at the commencement of the war came with a singular ill-grace from the nation which ordered its troops across the Pruth on the 2nd July 1853 without provocation, and which in the same year sent a fleet of six line-of-battle ships to totally destroy a number of small Turkish vessels in the Bay of Sinope.

Napoleon III. in 1870 hurried his forces to the frontier with a view to an incursion into the Palatinate and Southern Germany to hinder the mobilisation and concentration of the German forces, and to separate South from North Germany. His resources, however, were insufficient to carry out his plan, and he utterly miscalculated the political situation, since Southern Germany had no intention of joining him.

Napoleon in 1815 led his army against the Allies in Belgium because he was afraid to risk the political consequences of a defensive war in France, and because of the advantage he hoped to gain by attacking and defeating the two most powerful components of the Alliance. On the other hand, Wellington and Blucher had spread out their troops for the sake of subsistence, meaning to assume the offensive and concentrate as they advanced. Hence when attacked they were compelled to assume the defensive to cover the assembly of their armies.

With the exception of the wars of 1813 and 1814 and part of 1796-97, which may be regarded as examples of the defensive, the whole of Napoleon's campaigns were offensive in character. In the first two instances, moreover, the defensive was combined with the offensive—*i.e.*, the object was defensive, the methods by which he sought to gain it were offensive.

When Wellington had consolidated his position in Portugal and on the frontiers of Spain, he undertook in 1813 an offensive campaign against the main line of the French communications with their own country. The battle of Vittoria by which he cut it is one of the most striking victories on record, and led to the complete abandonment of Spain by the French.

The prompt assumption of the offensive by the Boers in 1899 enabled them to upset completely the British plan of campaign, which was based on holding Natal defensively,

while the main army invaded the Free State. But Sir George White found himself surrounded at Ladysmith, and a large force had to be employed simply to release him.

The offensive, then, is the resource of the strong; the defensive is only assumed by the weaker of the combatants, or for political reasons, or by the side which is slowest in mobilising, or because the nature of the country in which offensive operations would take place renders the attack very difficult, so that if the opponent has to come through it, all the resulting disadvantages are felt by him.

In 1812, for instance, political considerations and want of adequate preparations largely determined the defensive attitude of the Russians. For they knew that the nature of their country, owing to the few roads, sparse population, and poor resources, would render Napoleon's method of making war difficult.

In one sense the offensive is the costlier side to take, as it requires more men. Rapidity of movement is essential to it, and hence forced marches are often necessary to ensure proper concentration before delivering the tactical attack. These produce great losses. For fatigue and the diseases fostered by it produce far more casualties than fighting. The Prussian Guard Corps in the march on Sedan from Metz lost over 5000 men in six days. In the Boer war up to 30th June 1901, 5825 were killed or died of wounds, 10,037 died from disease, and 52,956 were invalided, of whom about 43,000 suffered from disease.

As the offensive army marches on through the hostile country it must protect its communications by detachments which detract from the strength of the field army. Portions of the invading force must also be employed to garrison the territory occupied and to besiege or blockade fortresses held by the defender. Thus it follows that every mile advanced into the invaded country diminishes the strength of the offensive army, and the foremost point, the portion that

fights the battles, becomes weaker and less able to undertake the tasks imposed on it, and if the advance were continued sufficiently long, there would come a time when it would be impossible to continue the offensive movement.

This happened to Napoleon in 1812. Some 500,000 French soldiers crossed the Niemen, but only about 95,000 reached Moscow, and these were too ill-provided and too weak in numbers to continue the offensive. Moscow was the high-water mark from which the tide of invasion flowed back across the frontier, and the fragments of the force which retreated into Germany represented all that disease, hunger, cold, and battle had left of the once magnificent Grand Army.

In 1877, 450,000 Russians passed the Danube, yet barely 43,000 of these reached the walls of Constantinople. The Germans in 1870 only succeeded in bringing 170,000 men to blockade Paris in the middle of September, though they had crossed the French frontier with considerably more than double that number but six weeks before.

We have ourselves seen in the Boer war the enormous proportion of the whole force absorbed in guarding the communications. For when Lord Roberts captured Pretoria, he had with him only six brigades of infantry, while nine were used to guard the line by which he drew up his supplies.

It is thus plain that the offensive is only possible when large numbers enable a leader to overcome the difficulties it offers, and good organisation ensures the rapidity necessary for carrying it out. But given these, there can be no doubt of its advantage. The moral gain is great, the soldier feels he is superior to his adversary when led with determination against him; and this mental attitude leads more than half-way along the road to victory. The successful side in war nearly always marches better, because the men are themselves capable of greater efforts, feeling elated by the battles they have gained. Hence the wise general spares no effort to rouse the soldier's feelings. Far

greater and more striking victories have been won by those who have succeeded in obtaining the soldier's devotion than by those who have merely earned his respect.

So far as England is concerned, it is plain that war must be offensive. Whatever the advantages of defensive strategy may be, no sane being would propose to exemplify them by allowing the enemy to invade this country before defeating him. Our navy, if kept at proper strength, should render invasion impossible at the outbreak of war, and enable us after a short time to gain complete supremacy at sea, and then to assume the offensive if we possessed an adequate army.

No better instance of the value of the command of the sea can be shown than the expedition to South Africa in 1899, in which our enormous fleet of transports traversed the 6000 miles of ocean to the Cape without let or hindrance because on the ocean England was supreme and no nation dared to interfere with the movement.

In the case of those portions of our empire which have a land frontier, as, for instance, India, the offensive would still be desirable. We have on our northern frontier a semi-ally in the Ameer of Afghanistan, in whose territories it would be advantageous both for him and ourselves that a Russian invasion should be met and defeated. Afghanistan could not undertake an offensive war; but a Russian attack would rouse the fanatical hatred of the nation, of which we should take advantage, so that it would be advisable for us to meet Russia beyond the Indian frontier. Again, in the case of a war with the United States, the best course to adopt would be to invade them on the southern side of the great lakes, pushing down as rapidly as possible to New York. The American nation having a very inadequate military organisation, is particularly liable to be affected by a movement of this kind directed at the heart of its country, while we should thus save Canada from the rude trials of war.

So universal is the feeling in favour of the offensive that every Continental nation seeks by the most careful organisation in time of peace to ensure that, in the event of a conflict with a neighbour, it may be able to gather its forces with the utmost rapidity on the frontier and anticipate the assembly of the hostile armies. The object then of the first battles would be to render a further offensive possible, and so enable the victor to continue the war in the territories of his defeated opponent.[1]

It is plain, therefore, that the quicker a nation can put its troops on a war footing, the greater will be its chances of success, other conditions being equal. Rapid mobilisation involves—

1. The localisation of all units of the army—*i.e.*, they must have permanent peace quarters so that they can be quickly mobilised for war.

2. Permanent organisation of the military forces into divisions and army corps, so that the latter can be rapidly grouped into armies according to the requirements of the war when it breaks out.

3. The railways leading to the frontier must be adequate in number, and properly placed to allow of rapid transport to the confines of the country. In the case of Great Britain, a sufficient number of ports must be selected for embarking the troops. At these full accommodation must be prepared, if it does not already exist, to ensure rapid shipment. Lists of ships suitable for transport must be kept, and due arrangements made with the navy for convoying the transport fleets.

4. The frontier, unless covered by a good natural obstacle, such as we have in the sea, should possess

[1] The case of the smaller nations, like the Belgians, the Dutch, or the Swiss, is somewhat different: they cannot undertake an aggressive war, and can only be called on to defend their own countries; but they must be prepared for attacks as sudden and swift as that of Frederick on Silesia, and hence good organisation is equally necessary for them as for others.

sufficient fortresses behind which the troops can be assembled in safety, and which would prevent the enemy marching past them without leaving a large portion of his army to watch them. These fortresses should also guard the lines of railway leading to the frontier of the country, and thus prevent the enemy using the latter for purposes of supply when invading it.

Should it be necessary at first to assume the strategical defensive, it must be regarded only as a temporary measure, one which, for the reasons previously given,[1] is at first assumed, with the idea of passing over to the offensive as soon as the conditions become favourable. Every defensive war offers many opportunities to the wary general, and combined with a proper tactical offensive may serve to clear the way for the change to a more active strategy. For example, in 1810 Wellington's general idea was purely defensive. Feeling unable to cope with the large French forces in the Peninsula, he determined to fall back behind the lines of Torres Vedras, removing or destroying all means of supply which would have aided the French advance. This was imperfectly done, as indeed was to be expected, it being too much to ask of any population in its own land. Yet the country offered no great resources to Massena, who was only able to bring about 50,000 men down to the fortifications round Lisbon, where Wellington was securely based on the sea. Now at least 400,000 Frenchmen were in Spain; but of these only 65,000 could be used for the invasion of Portugal, and part of these were required to guard the communications. Thus when Massena arrived at the lines of Torres Vedras he had neither troops nor sufficient resources available to act with energy against them, and after a time he found himself forced to fall back. Wellington followed and drove him from Portugal in the early months of the following year.

In 1812 the defensive attitude of the Russians led them

[1] See *ante*, p. 36.

to fall back before the invading French. But they assumed the offensive as the French began to leave Moscow and very nearly intercepted their line of retreat.

At the beginning of this chapter we have given two instances in which the national policy led to a defensive attitude—viz., that of the Prussians in 1866 and the Confederates in 1862. Yet in both instances the offensive was afterwards taken: in the first, as soon as active operations commenced; in the second, when it was believed that the only way to terminate the war was to carry it into the enemy's country. Lee failed at the Antietam and Gettysburg, but at least his efforts are worthy of recognition, as showing he fully understood that offensive strategy is needed to quickly end a war. The passive attitude may eventually induce a wearied enemy to seek for peace; it can never produce the same effect on him as the offensive crowned by tactical victory. A nation which declares war and acts on the defensive shows that it does not understand the condition most essential for success, while it exposes its own land to all the horrors of invasion.

It must be admitted, however, that the defensive is easier to conduct, if, as is usually the case, the struggle takes place in the country of the defender. It vastly facilitates supply, as the inhabitants are friendly, and may be relied on to afford every assistance, while they will not attempt to break the communications as they often do in the case of those of a hostile force. Railways, which are necessary for the rapid supply of small armies moving over large stretches of country, as in South Africa for instance, and vital for the feeding of large ones, as in France in the Franco-German war, or in Manchuria, can be easily interrupted. Two or three men with dynamite can do damage in half an hour which will take weeks to repair. The defensive when conducted in the mother country is almost entirely free from this risk, and is, moreover, not bound to any given line of communication

in a land well supplied with railroads. For it is easy to arrange by telegraph that supplies shall be sent to any point at which they are required, and hence an army can be moved about with a freedom impossible to one acting in a hostile country, tied to one or two lines of railway, every bridge of which is a vital point capable of easy destruction.

Yet great as may be the advantages of the strategical defensive, its main disadvantage—namely, the fact that it may be necessary for a time to yield up country to the enemy—will usually outweigh them. For the citizens who pay for the maintenance of the armed forces expect to be defended by them. They do not understand the military considerations which lead to the abandonment of territory, and public opinion, which usually influences the civil government, often prevents a retrograde movement which purely military considerations might otherwise render advisable. It cannot be said that either MacMahon's flank march on Sedan or the posting of British troops at Dundee (Natal) were advantageous from a military point of view. The former at any rate was due to civilian interference.

The question of defensive strategy in a foreign country need not be considered. It is obviously forced on the invader, either because he has been defeated or because he has come to the end of his offensive power.

In its own country a nation compelled to act on the defensive should, in addition to knowing all about its possible adversaries—

1. Study all lines of invasion open to any possible enemy, arrange plans of concentration for meeting them, and construct the railways necessary to bring the army rapidly to the threatened frontier.
2. Adopt a system which ensures rapid mobilisation.
3. Fortify important strategical points—*e.g.*, the capital, arsenals, dockyards, bridge-heads for manœuvring—block mountain passes by barrier-forts, and

construct intrenched camps to cover the concentration of troops on the frontier.[1]

In the case of two nations with a common land boundary, it is of great importance to arrange the Strategical Deployment of the troops on the frontier so that the army may be able to oppose the probable movements of the enemy, and also carry out its own General Idea for an offensive campaign. Which of these two conflicting factors should predominate it is impossible to say. To dispose the army with reference only to the former means surrendering the initiative to the opponent; to arrange it without regard to them is to incur danger. The decision will hang chiefly on the relative rapidity of mobilisation and celerity of transport to the common frontier of the hostile nations; these, in Europe, depend chiefly on the number of railways available.

During the time taken up in concentrating the army before commencing operations, it is not always possible to avoid conflicts with the enemy. As soon as the troops alight at the points of detrainment they must move away, and take up positions not only to cover the frontier and the arrival of the rest of the army, but also to be able to move against the enemy as soon as the dispositions are complete. The train journeys should therefore be terminated sufficiently far from the frontier to render it difficult for the enemy to interfere with the railways. The marching by road to the points of concentration thus rendered necessary has the advantage of getting the men and horses somewhat into training. Formerly this was done by the march to the frontier; but now long railway journeys take the place of the latter. Half the men are taken from civil life, and the boots of all are new. This renders them particularly liable to suffer from sore feet and the fatigue of marching. The first marches, therefore, should be short.

[1] See *post*, Chapter xiv., on Fortresses.

To cover the Strategical Deployment will be the work of the frontier garrisons, which should be rapidly put on a war footing if not kept at fighting strength during peace time. The cavalry divisions near the border, which are usually maintained nearly at war strength during peace, should be sent out the moment war is declared, to cover the movements of their own troops, and to injure the enemy's means of concentration by destroying the railroads and the military stations intended for the detrainment of his troops.

France and Germany have in peace time organisations for this purpose. Thus, the German XVI. Corps at Metz is kept on what is called "the higher peace strength," so that it can more readily take the field, while the cavalry division would be ready at four hours' notice to cross the frontier. To oppose these preparations the French have their 6th Corps, which is stronger in all points than the ordinary French corps, and which is ready to meet any incursions made by the Germans.

In 1870 the battles of Weissenburg, Woerth, and Spicheren took place before the complete deployment of the German armies; but they were, nevertheless, in superior numbers to their opponents, largely owing to the defective French plan of strategical deployment.

When two forces of fairly equal strength and organisation are face to face with one another on a frontier, each side will endeavour by manœuvre and battle to gain such a position as will cause his opponent to retreat. Where armies are very large—*e.g.*, the French and German—and practically fill up the whole of the frontier available for either to concentrate on, the time required would prevent a complete concentration to a flank with a view to turning that of the adversary: moreover, the movement would be dangerous, because the opponent might by advancing

against the weakened flank threaten the communications of the concentrating army.

It seems more probable, then, in such a case, that each side will endeavour to break up the integrity of the enemy's front by penetrating it at different points. It follows, therefore, that in deploying on a frontier the armies should be concentrated and ready for action as soon as possible, and that the army corps should move in at least two lines, so that if the first be penetrated, the second line may be able to stop the enemy, or to operate against his flanks, while the Strategical Front should have its flanks secured by obstacles, or by massing sufficient troops at the extremities to prevent them being turned. This was exemplified in 1870. The nature of the country protected the German right, while on their left the far superior Third German Army crushed the weak French right at the battle of Woerth.

The first engagements which take place on the frontier at the opening of a war will largely determine the direction subsequently taken by the victor. He will, after driving back the forces opposed to him, seek to destroy the fractions into which the enemy's army has been rent and prevent them from reuniting; or force them to retreat on fortresses, where they may be invested. Having thus freed a space all round his front of operations, he will be able to restore the railway lines necessary for his supplies, and will then advance once more against his opponent.

A carefully thought-out and appropriate plan of Strategical Deployment is therefore of prime necessity in the General Idea for a campaign. Portions of the army will have to act defensively, others offensively, and it is therefore desirable, while the preliminary movements of the campaign are in the course of execution, to keep the various parts as compact as possible, and in positions which will enable them to meet the varying situations.

In 1806, when it was Napoleon's object to turn the

adversary's inner or left flank, which thus formed the strategical flank, and when it was possible for the enemy to attack his own left, the whole force in its advance was kept massed in a space of forty miles by forty miles, so as to be able to form front in any direction.

In 1870 the French concentration on their frontier was ill-managed, the troops being divided into two principal masses, forty miles apart, the one near Woerth, the other at Saarbrück-Longeville. Both were attacked and beaten, and obliged to retreat to concentrate. The faulty General Idea of the French affected the whole course of the war up to Sedan, and to it was primarily due the defeats of Spicheren and Woerth.

The Austrian strategical deployment in the campaign of 1805 was even worse. For the Archduke Charles, with the greater portion of the army—some 130,000 men—was sent to Italy under the idea that the conflict would be decided there, while Mack was left with only 80,000 to oppose Napoleon. The consequence was the Archduke was unable to return to Vienna with his force before the battle of Austerlitz had decided the campaign.

In 1809 Napoleon on arriving at the front had to expend his efforts in righting the faulty Strategical Deployment due to Berthier misunderstanding his orders, and only escaped disaster by consummate skill. Rarely is it possible to recover the ground lost by a bad plan of strategical development.

On the whole, then, the offensive is superior to the defensive in strategy because of the enormous power it gains from securing the initiative; but it may not always be possible to assume it. For the offensive requires the most perfect organisation, so that the army may be put on a war-footing quickly and concentrated wherever needed. Unless this be the case, the initiative, which is necessary for the offensive, cannot be secured. Thus a defective mobilisation scheme or inadequate means of transport may prevent an early deployment on the frontier, and compel a nation to adopt the

defensive against another which excels it in these two points, or it may even be surprised by the sudden commencement of hostilities. In 1870 the arrangements for placing the French army on a war-footing were very defective, while the railway lines leading to the frontier were neither properly placed nor sufficient in number to enable the French to move with the celerity of the Germans, who thus anticipated them.

The Austrians in 1866 determined on a defensive concentration of their forces in Moravia because they saw the Prussians would be ready first. It was the inadequate military organisation of Prussia which rendered her incapable of joining Austria against the French in 1805 and in 1859.

In the Crimean war the want of railways prevented Russia from massing her armies against the comparatively small force that France and England put into the field; while even at the present day her railroad system is so defective that, to meet possible events, she is compelled to keep a large portion of her army on her western frontier. When Japan began the Manchurian war Russia was not half ready, not thinking the Japanese would dare to attack them.

Offensive strategy must be prepared for in time of peace by perfecting the military machinery. This cannot be done during hostilities, nor can the nation which has neglected to do so hope to wage war successfully.

CHAPTER VI.

BASES OF OPERATIONS—THE DISTINCTION BETWEEN BASES OF SUPPLY AND BASES OF OPERATION—ULTIMATE AND IMMEDIATE BASES—THE SITUATION OF IMMEDIATE BASES — THEY SHOULD NOT BE MERE POINTS.

VARIOUS meanings have been attached to the words "Base of Operations," but practically all writers include in this phrase two separate ideas—

1. *The Base of Supplies.*—The magazines in which the munitions of war and supplies of food are collected for the use of the troops at the commencement of the active operations.

2. *The Base of Operations.*—The area in which the armies are concentrated just previous to the commencement of hostilities, and which forms the starting-point for the first strategical manœuvres—*i.e.*, the zone of Strategical Deployment.

With regard to the first division, plainly, in its broadest sense, the whole country to which the army in question belongs forms the base, as from it the whole of the supplies of men, their clothing, equipment, ammunition, and part of their food, must come. Yet it would be hardly correct to speak of England as forming the base for an Indian force acting in Afghanistan, certainly not for strategical manœuvres and only partially for supplies, although to a great extent the arms and ammunition and the whole of

the reserves of white troops would come from the mother country. India would in this case be described as the base, entirely so far as the second, and largely as far as the first, division is concerned. Again, if we were operating in a foreign country—*e.g.*, France or Russia—the port or ports to which the supplies were brought from Great Britain would rightly be called bases so far as the wants of the troops were concerned. The mother country might largely supply them; but for immediate purposes depots would be organised on the enemy's sea-coast to serve as magazines for the army.

Similarly, when two nations at war have a common land frontier, supply depots would be formed immediately in rear of the district selected for the strategical deployment and covered by it. Subsequently others would be chosen in the theatre of war in accordance with the direction the operations might take. These points, or the seaports in the enemy's country from which active operations commence in the case of an over-sea expedition, form, therefore, temporary or Immediate Bases of Supply; but the whole country from which either army emanates is still its Ultimate Base of Supply.

It will thus be seen that the Immediate Base of Supplies and the Base of Operations are practically the same tract of country, the latter being that part of it nearest the enemy; but that the Ultimate Base of Supplies has little or nothing to do with the latter.

In Germany each army corps obtains its supplies very largely from the region to which it is allocated in peace time. Thus at the commencement of the 1870 war six weeks' supplies were collected in seven Prussian territorial divisions. But besides these resources a like amount was collected in the towns of Cologne, Coblentz, Bingen, Mainz, and Frankfort—*i.e.*, near the points at which the troops were originally intended to detrain, which thus formed an Immediate Base of Supply. Part of the provisions got together in the army corps districts

were taken with the troops to the zone of concentration, and these, supplemented by those accumulated in the towns above mentioned, sufficed to feed the troops during the first period of assembly. When the French failed to assume the offensive, and the German armies moved forward through the Palatinate, the First Army established temporary depots about Trier, the Second Army doing the same at Kreuznach, Alzey, and Worms. The westernmost portion of the Bavarian Palatinate may thus be looked on as the base of operations in this war, as in it the strategical deployment of the German armies was carried out, and it covered the immediate Base of Supplies. On the other hand, during the siege of Paris ammunition came from various parts of Germany, showing that the whole country served as the Ultimate Base of Supply for this purpose.

As the invading army progresses into the country it is attacking, the supplies are pushed along the roads or railroads in the general direction in which the troops are marching, and depots are formed at convenient points, those nearest the army being called the Advanced Depots. These are the sources from which the field army draws its supplies, usually by means of road carriage.

During the operations round Orleans an immediate base or depot was formed there for the troops fighting under Prince Frederick Charles against Chanzy. When the German Second and Third Armies were advancing from the frontier in 1870 after Bazaine's and MacMahon's armies, the Second was ordered on the 9th August to form a large depot at Saar-Union for the immediate necessities of the Third Army, as there was no line of railway available by which supplies could be brought up direct to the latter.

While, therefore, the Ultimate Base is still the country furnishing the army, the depots formed at various places act as Immediate Bases for the supply of the fighting forces.

The points selected for the Immediate Base of Supplies

before hostilities commence should plainly be as safe as possible from early attack, and should be sufficiently numerous to allow the food and stores to be sent easily from them to the front. This latter requirement is most urgent, for too great centralisation renders rapid supply impossible. The former might at first seem to be best fulfilled by employing fortresses as collecting centres; but these, as a rule, are not convenient, because ingress and egress is not easy, and the area available for storage is limited. If chosen, large intrenched camps, covering a considerable area, with a number of roads or railways leading from them, should be selected. It is improbable, however, that fortresses will be found in sufficient number for the purpose, but at any rate the flanks of the line of magazines should be thus secured, or they should rest on good obstacles. If neither of these conditions can be fulfilled, the points chosen for the depots should be placed sufficiently far behind the zone of strategical deployment as to be fairly safe from immediate attack.

Of the five towns used by the Germans in 1870 (see *ante*, p. 52), Cologne and Coblentz were fortresses, and were so far back from the probable line of advance of the French as to be safe in any case at the opening of the war. Bingen was the most exposed, but was some distance away from the probable direction of any hasty French incursion. Mainz was a fortress, and covered also by the Rhine. Frankfort was safe by the distance it was behind the immediate sphere of any French operations at the earliest stage of the war, and was also covered by the Rhine. Moreover, the zone chosen for the strategical deployment was such that shortly after operations commenced it was certain sufficient troops would be assembled to hold back any French advance. Moltke calculated this would be the case fourteen days after war was declared.[1]

[1] See Part II., German Plan of Campaign in 1870.

On the other hand, the French had large stores at Luneville and Forbach. These they had to abandon when their armies were compelled to retire after the defeats of Woerth and Spicheren, and they fell into the hands of the Germans. The position chosen was too near the frontier, considering the conditions under which the campaign opened, and these depots, intended to form the basis of a forward movement, could not be removed when the advance of the Germans compelled the French to retreat.

The Immediate Base of Supplies of an army should be of some length. If it consisted only of a single point, with only one road leading to it, the troops might easily be cut off from it if retreat were necessary. It should therefore be long enough to give the army some choice of direction if compelled to fall back on it, and so facilitate supply and re-equipment when needed. Thus in over-sea expeditions, if the operating army be of any size, it is plainly desirable that more than one port of disembarkation should be adopted. These principles are well exemplified in the Boer war. For the operations through Cape Colony the disembarking ports were Cape Town, Port Elizabeth, and East London, whence railways lead up to De Aar, Naauwpoort, and Molteno, the lines from the latter two joining at Springfontein. The base for Lord Roberts's first advance was the rail from Kimberley through De Aar to Naauwpoort. This fulfilled the condition laid down by Jomini—viz., "to establish the base upon those points where it can be sustained by all the resources of the country and at the same time ensure a safe retreat."

From what has been said it will be seen that not only should the base have free and numerous communications with the operating army, but that also the points of storage along it should be well connected by roads, railroads, rivers, or the sea. The necessity for a base having free communication along it was the reason why in olden

days, before the invention of railways, a river was so constantly chosen. For instance, in all the wars of Napoleon in Germany the Rhine was his main base. Here he accumulated stores and supplies from France. But beyond it and close to the zone of strategical deployment further stores of supplies were made. Thus in 1806, when southern Germany was friendly to him, an immediate base both for supplies and operations was established on the Main from Wurzburg to Kronach through Bamberg. To secure the right flank of this base, at which he intended to mass his army before advancing, he fortified Coburg, Kronach, and Bayreuth. Behind lay the Rhine base from Wesel to Strassbourg, which he would have used if driven back beyond the Main. In the previous year he had used the same two rivers as a base of operations against Austria. In both cases the direction of the Main was favourable to him, as advancing at right angles from it he threatened the enemy's line of communications.

In these two campaigns the Immediate Base of Supplies formed the district in which the Strategical Deployment took place—*i.e.*, it was also the Base of Operations or starting-point of the strategical manœuvres. But it does not follow that this is always the case. Jomini, the ablest exponent of what may be described as the geometrical theory of bases, admits that it is the form of the country in which the concentration takes place before operations commence, not the position of the depots of supply, which influences strategy. Clausewitz clearly saw this and opposed the theory of the base of supplies affecting it.

In a passage plainly aimed at Jomini he says: "Attempts have been made to sum up all the advantages which an army derives from being so situated, in one single conception—that is, the extent of the base of operations. By the relation which this base bears to the object of the undertakings, by the angle which its extremities make with this object

(supposed as a point), it has been attempted to express the whole sum of the advantages and disadvantages which accrue to an army from the position and nature of its sources of supply and equipment; but it is plain this elegant piece of geometrical refinement is merely a play of fancy. . . . All deductions from the length of the base of operations and its angles, and the whole theory of war founded on these data, . . . has never met with any attention in real war."[1]

The divergency in views of these two great writers is to be explained by the fact that in their time the want of rapid means of transport usually made the zone in which the troops were concentrated before operations commenced the Base both for Operations and Supply, at any rate to a great extent. But not always. For as Jomini himself states, "the base of operations is most generally that of supply, though not necessarily so, at least so far as food is concerned; as, for instance, a French army upon the Elbe might be subsisted from Westphalia or Franconia, but its real base would certainly be the Rhine"—*i.e.*, the Elbe formed the Base of Operations; Westphalia, Franconia, and ultimately the Rhine, were the Bases of Supply.

At the present day the divergence between Bases of Supply and Operations has become more probable. Freedom of communication, owing to the application of steam, is so great that the area from which supplies and the material of war can be drawn is much wider, and hence there is not the same necessity for the formation of large magazines in the area in which troops are concentrated; but there still remain the initial advantages which may be derived from the formation of the zone of concentration and its geometrical relationship with reference to that in which the enemy's troops are being assembled. To illustrate the first point of

[1] Jomini, however, had his revenge. In speaking of Clausewitz's views on mountain warfare he says, "General Clausewitz, whose logic is frequently defective" &c.!

this proposition, it may be remarked that in the second phase of the Franco-German war—*i.e.*, that portion waged by the Germans against the French Republic—the latter would have been absolutely incapable of carrying on the struggle had it not been able to obtain equipment and munitions of war from beyond the seas. This could not have been done at the beginning of the century in time to have been of any assistance. Moreover, the French armies in the field were so ill-provided with train that they could not move far from the railroads, and if these had not been available, the troops could neither have been got together nor afterwards maintained. The railways of France alone it was that gave some measure of success to Gambetta's efforts, and enabled him to keep the Germans at bay for six months.

The expression Base of Operations, then, covers two separate ideas—

1. The zone of country in which the strategical deployment takes place, and which forms the starting-point of the strategical manœuvres at the commencement of a war;

2. The territory in which the first depots for the supply of the army in the field are constructed.

Now, as we have seen, the country to which the army belongs plainly forms the ultimate source of all supplies: we say, therefore, that the whole territory of the nation acts as a base to its army in the field, and we call it the Ultimate Base of Supplies. In addition it is necessary to form supply depots—*i.e.*, Immediate Bases of Supplies—in or near the region selected for the strategical deployment, and these, as the war progresses, will move with the army, forming, therefore, Movable Bases; while the area of country in which the army is deployed before commencing hostilities is the Base of Operations.

CHAPTER VII.

THE ADVANTAGES AND DISADVANTAGES TO BE DERIVED FROM THE GEOMETRICAL FORM OF THE FRONTIER ZONES IN WHICH STRATEGICAL DEPLOYMENT TAKES PLACE.

THE tract of country in which a nation assembles its troops before the outbreak of hostilities—*i.e.*, the zone of Strategical Deployment or Base of Operations—may have such a relationship with regard to that in which the enemy assembles his on the other side of the frontier as to confer important advantages.

If two nations entering on war have both equal facilities for concentrating their troops on the common frontier, it is plain that if one have a line of well-constructed fortresses and the other none, the latter will be at a disadvantage. For its field army will have no supporting points such as well-planned and well-placed fortifications afford. Again, if the capital of the one be much nearer the area of active operations on the frontier than the other, so that in the first case two or three days' march only are necessary to reach it, while in the second a long distance intervenes, the latter is more effectively placed, from a military standpoint, than the former. War is largely affected by moral factors. The fall of the capital may not end the struggle, but it will always largely influence it. No government will yield the centre of administration without a struggle, and if one side try to reach the capital of the other, the forces of

the latter will certainly be used to defend the approaches to it. When so important a point is near the frontier its safety, if unfortified, may depend on the result of a single battle. Were there no English Channel the French army would be within sixty miles of London when brought to the limits of the state. The capitals of France, Prussia, Austria, are all considerable distances from the surrounding foreign territory. St Petersburg is fairly close to the sea, and therefore open to the attack of a combined naval and military expedition. But the army of Russia is so numerous that a purely over-sea expedition, being limited in size, could scarcely hope to capture it, and the organisation of the country is such that it could probably be nearly as well administered from Moscow, which is more centrally situated. But no one can deny that the occupation of St Petersburg would considerably affect the war. The fall of Paris in 1814, 1815, and 1871, terminated the struggle. Similarly, the occupation of important points, such as arsenals, great centres of manufacture and supply, whether of a military or civil character, all influence the operations. It is therefore important, from the military point of view, that these should not be near the frontier from which attack is possible, or if this be unavoidable, that they should be fortified.[1]

The above considerations are unaffected by the form of the frontier, but the latter may also have an important influence.

The boundary line between two states may be

1. Straight;
2. Broken inwards, or re-entrant;
3. Broken outwards, or salient.

In the first case, plainly neither side derives any advantage from the geometrical form of the frontier. But the second and third cases require further investigation.

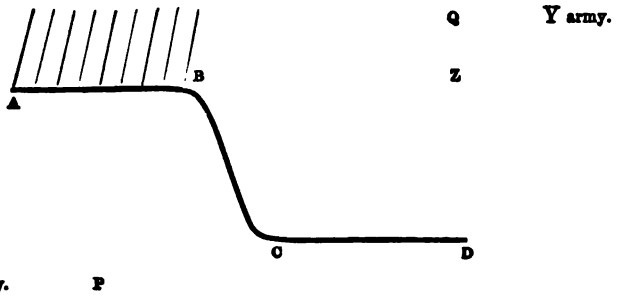
We have seen in Chapter iii. that in addition to ensuring superiority of numbers at the point of collision strategy

[1] See, however, on this head Chapter xiii.

aims at putting an army in such a position that it may be able to threaten the communications of the enemy while protecting its own. It has been shown also in the same chapter that when an army is compelled to form front parallel to its line of communications defeat may lead to total ruin. If it be possible, then, so to arrange the Strategical Deployment of a force that from the outset the second advantage to be derived from strategy may be gained, it will be in a very favourable situation. Whether this is or is not possible depends on the geometrical relationship between the deployment zones (Bases of Operation) of the two rival armies.

Let A B C D represent the boundary line between two states. Let X and Y represent their armies, P being the objective of Y, Q that of X.

Fig. 3.



If the frontier A B C D be traversable at any point by both armies, then neither would have any advantage over the other from its shape, as they would both be reciprocally situated. But suppose the portion A B to be impassable to either side. This might arise from the shaded portion belonging to a neutral state or being physically difficult to traverse. Then X is in a more favourable position than Y.

For assuming that the facilities of approach in both cases are equal, Y can advance against P either from BC, or CD, or from the salient C. If from BC, then X by advancing

from CD can at the outset threaten the flank and communications of Y, so long as the latter are within the salient—*i.e.*, so long as the form of frontier influences the operations. At the same time X covers its own line of communications. If Y were to cross the frontier CD, X advancing from BC would play precisely the same part. If Y determined to advance from the salient C, then the army would be liable to a concentric attack by the army of X, and could be struck on either or both flanks.

In all three cases discussed above we have assumed that Y had the initiative. Let us now suppose this was assumed by X. Advancing from BC, this army would be able first of all, as the shaded territory secures its left, to assemble in safety near B, whence advancing towards Q it would cut off a large portion of Y's territory and the communications of any force of Y in the salient. Any force operating from Z within the angle BCD, and moving on CD, must oppose directly an enemy advancing from BC, and to do so must form front to a flank, the danger of which has been shown in Chapter iii.

So far as the army from P is concerned, it is evident that the frontier BCD forms a re-entrant, while for the army Y it constitutes a salient. Its shape is plainly advantageous to the army X under any conditions, but its value is enhanced when X can take the initiative.[1] To seize the initiative—*i.e.*, to compel the enemy to follow your lead and take the defensive against your offensive—is under any circumstances a great advantage, because while you desire to strike, he, for a time at any rate, has to content himself with warding off your blows; and it intensifies the advantage to be obtained from any strategical situation, because it renders the results to be obtained from

[1] Some foreign writers speak of such a form as a rectangular frontier. The expression re-entrant or concave seems more accurate. Von Moltke says that "a concave base gives liberty for movement and manœuvres in three directions at least." In 1862 the Federals cut off from Yorktown were able to fall back on Malvern, at right angles to their original line of communications, because they commanded the James River which, with the Potomac, formed a re-entrant base.

a tactical success so much greater. If X cannot obtain the initiative at the opening of the campaign this will largely diminish the advantages to be derived from the form of the frontier zone, but cannot do away with them entirely, for they must be taken into consideration by the military authorities of Y when forming their plans to resist X.

But there are other considerations which affect the question. In the first place, it must be at once conceded that if X make use of a double line of operations—*i.e.*, divides the army and moves from both BC and CD—Y will have all the advantages possessed by a force acting on interior lines so long as the latter is between the two opposing forces.[1] It would therefore seem best for X only to use one line of operations, and move from BC. But with large forces this will often be impossible, as questions of supply and the difficulty of moving and deploying them will render a double line of operations necessary. In that case it is evident that such double lines of operation must be sufficiently near one another to render it inexpedient for the army using the single line to act alternately against the divided forces, owing to the danger it would run of being caught between them if it did so. A force held in front and struck in flank is in danger of annihilation. Hence we may fairly deduce the proposition that if two lines of operation are employed, they should not be more than three or four days' march apart at starting, or if separated by a greater distance, each force should have a reasonable prospect of holding the undivided enemy till the other can come up to its assistance. In other words, the side using a double line of operations should choose them so that the enemy cannot reasonably derive any benefit from acting on interior lines between them.

X, therefore, acting in two portions against Y, should move across the frontier BC, CD, reasonably near to salient C.

[1] See Chapter X., in which the advantages and disadvantages of interior lines are fully discussed.

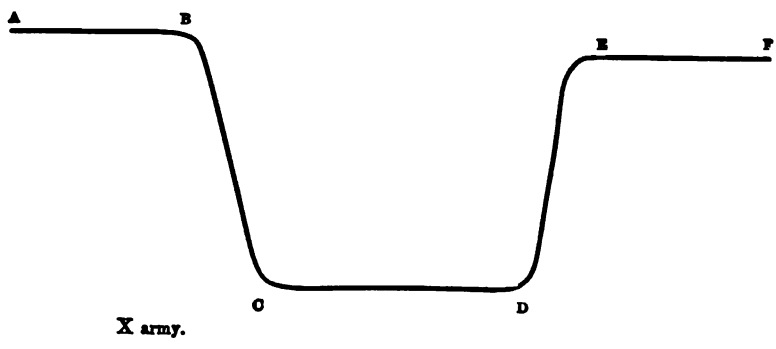
On the other hand, if one line of operations only be used, the nearer to B the army crosses for invading the territory of Y the better, as it makes it easier to cut off any troops of the latter in the salient. Obviously, the narrower the salient the more dangerous is it for Y to keep troops in it, as it is easier for X to cut off and isolate them.

Another point to be considered is the possession of the issues across the frontier. Unless these are in the possession of X, or can be seized at the outbreak of the war, the geometrical form of the frontier plainly confers no advantage, as it is only to be gained by the assumption of the offensive, which is impossible if the frontier cannot be passed.

It is evident, then, that the re-entering form for a base of operations may be of great value, and that the advantage lies, putting aside the question of the initiative or possession of the passages over the frontier, chiefly in the fact that it favours action against the opponent's line of communications without exposing that of the army using it.

What are the advantages and disadvantages of the salient form of frontier? Referring to the figure given below, the only advantage lies in the fact that unless X

Fig. 4.



can assume the offensive before Y, it must separate its forces to protect the territory lying round the salient, and hence is open to strategical penetration by the concen-

trated forces of Y. Moreover, if X be on the defensive, it cannot tell on which side of the salient Y will act, and hence the element of uncertainty is introduced. Clearly, therefore, to be in any way advantageous, the salient frontier involves, even more than the re-entrant, the possession of the issues as well as the initiative, so as to enable the army to cross the salient at any desired point. The great disadvantage of the salient is, that a force acting from it is very liable to flank attack from the enemy's territory it leaves behind it in its advance. If the salient be narrow it is always dangerous, for if the invading army be driven back, then it is peculiarly open to a converging attack from both sides. Even during the strategical deployment, unless it holds the issues and can assume the initiative, it is open to the same danger.

If the distance CD be sufficiently great, and the means of communication good, then Y, being able to manœuvre, can hope to hold one side while massing its forces against the other—*i.e.*, to act by interior lines. In such a case the salient is advantageous, for it will prevent X crossing along AB or EF on account of the danger to its communications. In these circumstances the salient really becomes a double re-entrant so far as Y is concerned. But unless it is wide and roomy it is disadvantageous, for the army using it requires considerable space for manœuvring, as otherwise it is liable to be crushed between two bodies of opponents approaching from opposite sides of the angle.

It is evident, then, from what has been said above, that,

1. On the whole, the re-entrant-shaped frontier is the more advantageous, because it enables the side possessing it to strike at the enemy's communications while protecting its own.

2. To take advantage of this shape the army using it must possess the power of debouching over it at properly situated points.

The salient form of frontier confers the power on the offensive

3. Of debouching into the enemy's territory from either side—*i.e.*, enables a concentrated force to act by interior lines against the opponent whose forces are split asunder by the salient.

4. Of sometimes allowing a shorter route to the main objective than would otherwise be available, and one which gives a shorter line of communication through hostile territory.

But when on the defensive it offers the disadvantage,

5. Unless the salient is large and roomy, of not giving sufficient space to manœuvre a force of any size, which is then liable to the dangers run by one exposed to a convergent attack.

If the salient be of large size, then it becomes a case of

6. A double re-entrant.

Further, it is to be remembered that the inherent advantage to be derived from the re-entrant shape can only be taken proper advantage of if the side possessing it has the initiative. The advantages of the initiative are, indeed, common to all the operations of war. For a prompt assumption of the offensive renders it easier to carry out the general idea dominating the operations, and, as long as successful, compels the enemy to subordinate his views to those of the army leader taking it.

The advantages claimed under 1 are well shown in the Ulm campaign of 1805.[1]

Napoleon used the Main and the Rhine against the Austrians on the Danube. BC on fig. 3 may be taken to represent the Main; CD the Rhine; the shaded portion above AB Prussia, which was neutral; Z Ulm, the first objective of the Emperor. Advancing from BC, he from the beginning threatened the communications of the Austrians at Z (Ulm) with Q, and eventually cut them off and surrounded them.

[1] See Part II., Campaign of 1805.

So far as 2 is concerned—

In 1866 the Austrians had a re-entrant frontier against Prussian Silesia, but they did not hold the debouches across the mountains into it; therefore, even if they had been ready before the Prussians, they could not have derived any advantage from the form.[1]

In the second phase of 1796 Napoleon, by seizing the passage over the Po at Piacenza, obtained a re-entrant base —viz., the line of the Ticino and the Po—for his operations against the Austrian lines of communication which he intercepted by his movement on Lodi.[2]

With regard to 3 and 4—

Had we been able to advance from Natal in 1899—*i.e.*, could we have taken advantage of the salient form of the frontier—we should have penetrated between the forces of the Transvaal and Orange Free State, and operating from this direction against Pretoria, we should have had a materially shorter line of communication than we had from Cape Colony through the Free State to Pretoria.

The same campaign illustrates 5. For the small size of the salient in this case left us little or no manœuvring power on the defensive, and led eventually to our force being shut up in Ladysmith owing to the convergent attack directed against it from the Free State and the Transvaal.

The point alluded to under 6 was exemplified in 1800, when the possession of Switzerland gave the French a large projection from their frontier, turning the Black Forest on the north and western Piedmont on the south. It is sometimes quoted as a salient, but is really that of a double re-entrant. For the army Moreau led against Kray in Germany was quite independent of that with which Napoleon operated in Northern Italy, as the two forces were acting in different and unconnected theatres of war.

[1] See Part II., Campaign of 1866.

[2] See Part II., Campaign of 1796.

CHAPTER VIII.

PLANS OF CAMPAIGN OR GENERAL IDEAS—SELECTION OF THE THEATRE OF WAR—THE OBJECTIVE.

PLANS of campaign must be prepared in time of peace—*i.e.*, the General Idea on which each is to be based, and which forms the guiding factor in carrying it out, must be fully considered beforehand, and the preparations necessary for conducting it carefully elaborated.[1] The object of all such schemes is to inflict the greatest injury on the enemy as rapidly as possible. The aim of every General Idea, therefore, is battle.

This was ever present in Napoleon's mind at the opening of hostilities. He endeavoured from the outset to place his forces in such a position as would enable him at once to deal his adversary a crushing blow, as he did in 1805 and 1806. The fighting round Ulm and the battles of Jena-Auerstadt terminated the first phase of these two campaigns respectively. Each is clearly the outcome of the strategical movements at the opening of the war, and formed the proper tactical conclusion to them.

Similarly, in 1813, the direction of Wellington's army against the French right from the first struck their weak side, their strategical flank, and Vittoria completed the success due to the direction given to our forces.

[1] Those who desire some proof of this fact should study Moltke's 'Militärische Correspondenz.' In foreign countries the preparation of plans of campaign forms the chief duty of the Headquarters' Staffs. It is only recently in England that this has been recognised, and the Adjutant-General, who had usurped the position of Chief-of-the-Staff, relegated to his proper place as a species of magnified sergeant-major.

It is, of course, true that no General Idea is complete which does not deal with the possible action of the enemy; but the main point to consider is the adoption of such measures as will compel the adversary to conform to them. If this be impossible, an offensive General Idea is inappropriate to the conditions existing. For instance, Napoleon III. devised an offensive plan of operations for a war against Germany. Unfortunately for him, his assumptions were false, and the numbers he had available totally inadequate for the proposed line of action.

Our Plan of Campaign against the Boers in 1899 seems, among others, to have failed in the following points. It assumed that—

1. The force available in Natal was sufficient for active defence, while the advance of the Army Corps through the Orange Free State would attract the main force of the enemy towards it.

2. The total force available, roughly five divisions, would be strong enough to deal with the combined Boer armies, although the two portions of our troops were widely separated, could not, therefore, aid one another, and were thus liable to concentrated attack by the enemy's forces.

Both assumptions were unjustified, and it was not till a more rational strategy was adopted and larger numbers were employed that we gained any useful successes.

To devise General Ideas for all probable campaigns involves obtaining information—

1. With regard to all likely Theatres of War; what supplies they are capable of furnishing; the carrying power of the various railways and other means of communication, such as canals, rivers; the nature of the roads; statistical information as to the inhabitants and the geographical nature of the country.

2. As to the armed forces of every possible enemy;

the rapidity with which these can be mobilised and moved to the frontiers; their arms, training, discipline, and mode of making war; the characteristics of the chief leaders. In our case we must also know the naval policy and probable dispositions of the enemy's fleet.

3. With regard to the fortresses in the various countries.

4. In the case of England invading a Continental Power, it would be necessary to select ports of disembarkation to suit the line of invasion adopted. Such ports should be capable of defence on the land side, because it is important to afford shelter to our army if driven back on it. Plans for provisional forts to be erected there and the necessary guns and stores should be prepared in peace time.

The considerations which guide the selection of the Theatre of War, or of the Theatre of Operations, are—

1. The nature of the country composing it. Thus France, in invading Belgium, would avoid the Ardennes, and would not move through the Eifel to attack Germany, because in both cases the wooded and mountainous nature of the country is eminently unsuited to military operations on a large scale.

2. The position and security of the Immediate Base, having regard to the proposed operations. When fighting in Prussia in 1813 Napoleon based himself on the Elbe, a far too advanced position. The consequence was that he lost his magazines when driven back, and was compelled to retreat to the Rhine.

3. The advantage or otherwise to be derived from the form of the various zones which can be employed for the Strategical Deployment, and the geometrical relationship between these and those the enemy would make use of.

4. The number and position of the railroads leading

to the frontier and their security from attack. The nature of the roads in the actual Theatre of Operations. Mobility is necessary to the side that seeks the initiative, and this depends on the facilities for movement—*i.e.*, good means of communication.

5. The position of the main Objective other than the enemy's army. For instance, it will always be the desire of the Germans invading France to reach Paris.

6. If undertaking over-sea operations, one or more harbours would be required, affording facilities for disembarking troops, and so placed that they can be defended by provisional fortifications.

Some writers suggest that the choice is also affected by the question as to whether the country is suited to the army. But this is really a question of organisation—*i.e.*, the army must be so constituted as to be able to fight advantageously in the country which other reasons have caused to be selected. The ordinary European organisation, for instance, is not suited for war in the lands bordering the north-west frontier of India, but we know that we may have to fight there, and in these circumstances our troops must be equipped to meet the requirements of the case. We have seen (*ante*, p. 8) that the original formation adopted for South Africa was inappropriate and had to be modified. To fight the Boers we had to rearrange our troops into far more mobile forces.

In offensive strategy, therefore, the question of the adaptability of the forces to the ground has nothing to do with the case. Whatever their peace constitution may be, it must be varied to suit the carrying on of war in the country in which hostilities take place. Napoleon took his troops over the Alps in 1800; Wellington in 1813 led his through the mountainous country of Northern Portugal, each commander making the necessary arrangements, each judging rightly that the enemy would never

suspect the advance to take place over such unfavourable ground, while, if successful, great results could be obtained from the movement. A country with a difficult borderland forming its frontier will of course organise its defence in peace so as to make any advance through it as difficult as possible. Thus both Italy and France have special troops to defend their Alpine frontiers, and special forts to bar the likely roads. There are numerous examples in history which show that even the armed inhabitants of such countries as the Tyrol, the Vosges, or Spain, making use of their knowledge of the theatre of operations, can seriously hamper the course of an invader. Our own experience in the Boer war proves the difficulties which an active guerilla war may cause to the adversary.

Nor from the point of view of pure strategy does the organisation of the army affect the selection of the area to fight in. Difficult ground favours defence, because fewer troops are required to hold it, and because great victories are seldom obtained in it, owing to the difficulties of pursuit; but it may not be always possible to avoid it, although open ground favourable for the use of all three arms should if possible be selected by the side which assumes the offensive. Many wars have taken place in Northern Italy, which in parts is much cut up by watercourses. The defiles of the Black Forest have often re-echoed to the clash of arms, as it is the natural meeting-place of the South-German and French forces, being on the direct line between Bavaria and France.

Political reasons will, of course, affect more or less the question of the selection of a theatre of war, but these should be subordinated to the military as much as possible. The main point to remember is, that the proposed campaign should inflict the greatest damage to our enemy with the least risk to ourselves. In 1809, largely for political reasons, we entered on the Walcheren Expedition instead of concentrating all our forces in the Peninsula. The destruction of

Antwerp aad the ships in the Scheldt would never have produced the effect that might have been obtained from a more energetic conduct of the operations in Spain, which would have been possible if the 30,000 men wasted in Holland had been given to Wellington. In the wars against Napoleon at the beginning of the century, the military ignorance of our Government frittered away our strength, instead of concentrating it at the points where it would have had the greatest influence.[1]

Political reasons also affect the selection of the theatre of war when fighting in alliance with other States. It may be necessary to protect the territory of allies, even though by doing so a less advantageous theatre of war or operations may be thrust on us.

Thus in 1806 the Elbe was actually the best line of defence for Prussia to take up. But this would have left Saxony and Hesse-Cassel open to the French: to ensure these countries helping her, Prussia took up a position which covered them.[2]

In 1853, when Turkey was secure from invasion by the defeat of Russia in Bulgaria and the Dobrudscha, and Austria had adopted a position of armed neutrality and occupied Roumania, the seat of war was transferred to the Crimea, because of the moral effect to be obtained from attacking Russian territory and destroying the dockyard of Sevastopol.

In our case pure strategy might suggest the river Indus as the best line of the defence for India against a Russian invasion. But politically it would be impossible to allow the enemy to invade our territory, and it would be far better to meet it in Afghanistan, thus helping our ally the Amir against unjust aggression, and insuring Afghan support.

The selection of the Theatre of War will thus often lie

[1] See also *ante*, p. 26. [2] See Part II., Campaign of 1806.

with the Government, but the execution of the campaign should be left to the general commanding. The pernicious Indian habit of sending a political officer with a military expedition often renders the latter abortive, and occasionally ends in disaster, as in Cabul, in 1842. In the early days of the first French Republic the Committee of Public Safety was in the habit of attaching a representative to the various armies. The results certainly show it to have been a very bad arrangement.

In the case of nations which have a common land frontier one of the most important factors in determining the zone to be used for the strategical deployment is the number of railways which lead to it. For the initiative will undoubtedly fall to the side which first masses its forces on the Base of Operations, and which can therefore act with superior numbers at the points where collision first takes place. Great as may be the advantages to be derived from its geometrical form, these depend so largely on the power of anticipating the enemy by seizing the initiative that more is to be gained from the latter than from the former. Hence everything which aids rapid concentration, and which enables the attack to be made immediately with superior numbers, is of the highest moment, and the ability so to act is therefore the principal factor in determining the region which is to form the Base of Operations. Hence a good railway system, consisting of many lines converging on it from all parts of the home country, is probably of far greater value than any other consideration.

It is the appreciation of this fact that has led to such a large increase in the number of the railroads in Germany which lead to the Rhine, while special stations have been constructed and every preparation made for the rapid detraining of the troops.

Good roads are also needed, because troops cannot move rapidly over bad ones, and rapidity of movement is the very soul of successful offensive strategy.

The military leaders of a properly organised power know the points which an opponent will probably attack. Appreciating the necessity of railways to an invader, they, if beaten back from the frontier, endeavour to destroy all railroads which would facilitate his movements and supply, while availing themselves of their own railway system for strategical purposes, such as taking up flanking positions and other manœuvres against the assailant's line of communication.

In 1870, had the French been wise, they would not have attempted to relieve Bazaine, but would have ordered MacMahon to base himself on the south of France, and strengthened him with all available forces. He would thus have been in a position to arrest the German march on Paris, for this could not have been gone on with while a powerful French army lay on its left flank threatening the communications with the Rhine. The war, therefore, would have taken a different complexion,—France would have based herself on the southern half of her dominions, the Germans must have turned after her armies and followed these up, thus enormously adding to the length of line communications to be guarded.

The General Idea for the conduct of war involves the selection of certain aims or objects called Objectives, each of which forms the Special Idea of a particular phase of the operations. In choosing Objectives the nature of the political organisation of the country must be borne in mind. In the case of highly centralised countries, such as France, the capital would certainly be one of the most important. But in the case of one which has a decentralised organisation its capture will not necessarily be decisive. In 1805 and 1809 Vienna was taken by Napoleon without putting an end to hostilities, because the organisation of Austria is essentially provincial. Madrid was held by the French almost without a break from 1808 to 1814, but this did not prevent the Spaniards and their allies carrying on the war in the provinces. On the other hand,

the fall of Paris in 1814, 1815, and 1871 terminated the resistance of the French.

The first Objective under modern conditions of large armies, as has been shown in Chapter iv., is the destruction of the enemy's field force. In addition to this, a successful general will endeavour to gain, if the capital be distant, intermediate points, the possession of which gives him considerable moral or material advantage. Such Secondary Objectives are formed by important railway centres, fortresses and defensive positions, which would threaten the line of advance of the invader unless captured or masked. Secondary Objectives thus become Special Ideas of the General Idea governing the operations. In 1870 Paris was the Objective of the Germans, but to begin with, it was necessary to defeat Bazaine and to blockade him in Metz. The capture of Strasburg was also desirable, both from a military and political point of view. When MacMahon attempted his flank march, the German armies were diverted northwards from their advance on Paris to prevent him relieving Bazaine. In the original plan of concentration of the German troops, the Third Army was made sufficiently strong to deal with any concentration of the French forces on the left flank of the German lines of advance. Were we at war with France, the destruction of Toulon or other important seaports, and the capture of her colonies, would be the chief means of inflicting injury on the foe. We could not attempt an advance on Paris, the chief objective of all Continental invaders, without an ally, our army being too small to act independently. Yet the wars against Napoleon at the beginning of the last century show how necessary it is for us to possess enough military force to be able to take the war into the enemy's country.

The position of England involved in war with a foreign nation is somewhat peculiar. Our operations in Europe, or anywhere else except when advancing from the land frontiers

of India or Canada, involve as a preliminary the seizure of some point on the enemy's coast, which would therefore be our first Objective. Combined naval and military operations would be necessary for this purpose, and if large forces are to be transported from England, complete command of the sea must be obtained, which would have to be fought for at the commencement of the war.

The assailant who possesses supremacy at sea has a great advantage when fighting an adversary with an extensive littoral, as it enables him to attack the hostile country at any point he may select along its shores, and permits him also to transfer his immediate base of operation in accordance with the subsequent requirements of the campaign. Times out of mind we have, owing to our naval supremacy, made descents on the French coast, although the want of proper military strength has rendered them barren of result. We could, if we had a sufficiently large army, strike Russia at Vladivostock or in the Baltic provinces or Finland. In the Peninsular campaigns, the fact that we dominated the sea enabled us to keep up our supplies of men and material, and allowed Wellington, as he progressed towards the French frontier, to shorten his line of communication by transferring his base from Lisbon to the Duero and from the Duero to Santander. Similarly the Japanese gained considerably by being able to land their troops where they liked between Chemulpo and Dalny, while their command of the sea subsequently enabled them to use the river Liao from Ying-kou upwards for supply purposes.

CHAPTER IX.

STRATEGICAL MANŒUVRES—OPERATIONS AGAINST AN ENEMY'S FRONT—STRATEGICAL PENETRATION—OPERATIONS DIRECTED AGAINST AN ENEMY'S COMMUNICATIONS.

ALL strategical manœuvres can be divided into two classes, viz.—

1. Strategical front attack against the enemy's front;
2. Strategical flank attack against his flanks or communications.

Operations against an opponent's front may be adopted with a view

(*a*) To thrust him back by dint of superior numbers or superior fighting power;

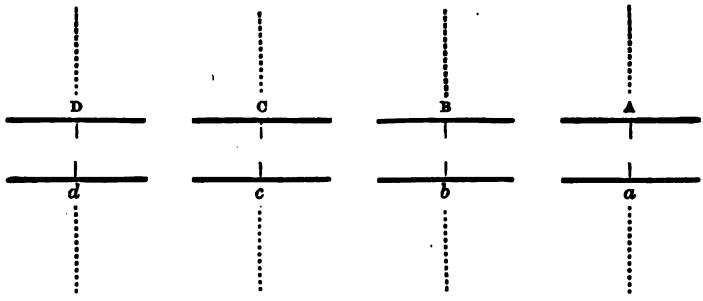
(*b*) To penetrate his front and then crush in detail the fragments into which his line has been riven.

The first course (*a*) is not a strategical manœuvre, but merely an application of brute force; the second (*b*) requires some consideration.

If two Continental nations were at war, the direction of their railroad systems would largely influence the direction and course of the respective strategical deployments, and we may fairly assume, considering the huge forces they would put into the field, that a considerable portion of the common frontier would for the sake of rapidity of deployment be covered with them. A nation having a large national army which tried to concentrate the whole of its troops to one flank, as Napoleon did in 1805 and 1806, would not find

room for their employment, while its concentration would be much slower than that of its adversary, as fewer railway lines could be made use of than the latter would be able to employ if he used a larger portion of the frontier to deploy on. Moreover, a concentration to one flank would leave a considerable area of territory open to attack. As a rule, then, it may be assumed, except in the case of small forces, that the Front of Operations of the rival armies would at the outset of the struggle be the common frontier. At first, therefore, any attack, from the strategical standpoint, must be frontal, although tactically the flanks of certain fractions of the forces might nevertheless be aimed at.

Fig. 5.

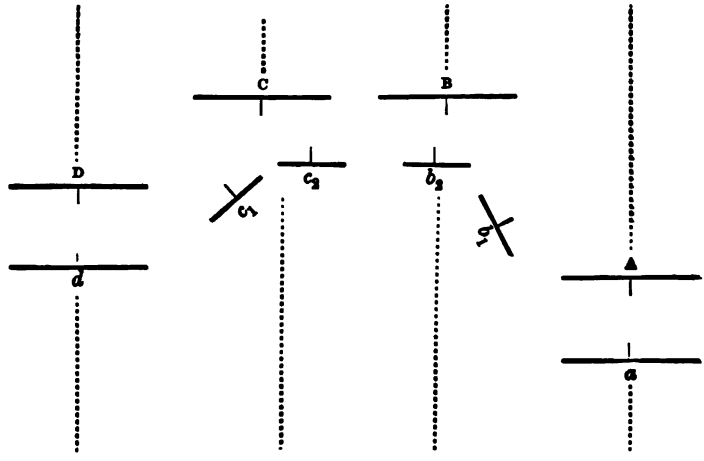


N.B.—In practice, the line would of course not be absolutely straight.

But neither side could count on victory along the whole front of operations. At some points successes would be gained, at others the operations would be checked, so that the two forces, even if they started with fairly parallel fronts, would after the first encounters be thrown into a much more irregular formation. The natural tendency to stand on the defensive where defeated, to push forward offensively where victorious, would produce gaps in the lines of deployment of the two armies, and give to the side tactically successful the opportunity of penetrating the opponent's front at certain points.

We may fairly assume in the case of two nations like France and Germany, each of which would put twenty Army Corps in the field, that these would, for the reasons given on p. 6, be divided into four or five armies. Suppose, then, that each of two nations at war had four armies of fairly equal strength facing one another. Referring to fig. 5, let A, B, C, D, represent four northern armies, *a*, *b*, *c*, *d*, four southern, their lines of communication being shown by the dotted lines. Now suppose *c* and *b* to defeat C and B, that A presses *a* back, and that of D and *d* neither obtains any decided advantage over the other. The position will then be as

Fig. 6.



shown in fig. 6. It is plain that the southern force is in a more favourable position than the northern. For C and B having been compelled to retreat, *b* and *c* need follow them with part only of their available strength, while with the remainder the communications of A and the flank of D may be threatened: in this case we should say that the southern forces have strategically penetrated the northern.[1]

[1] It must not be assumed that Strategical Penetration is always possible; but in Continental warfare, where large forces are concerned, situations will probably arise in which it can be carried out by interposing between columns or armies.

The advantages derived from Strategical Penetration are—

1. One or both wings of the penetrated force will be open to flank attack.
2. It may be possible, as in the case of b_1 against A, to at once carry the flank attack to such a point as to threaten the communications of part of the enemy, or even directly to interrupt them.
3. It may lead to the complete surrounding of some portion of the enemy's force.

The possibility of completely enveloping one or both of the wings of the penetrated army will depend, first of all, on the ability to completely interrupt its communications; and secondly, on having sufficient force not only to do this but also to complete the circle round it by a double flank and frontal attack. To surround an adversary obviously requires great numerical superiority, which must be maintained during the operation—*i.e.*, referring to fig. 6, C and B must be driven sufficiently far back and kept away long enough to prevent their return to the assistance of A, while the portion of *b* acting against A's communications, and *a* attacking this force in front and flank, must together possess sufficient numerical superiority over A to render its complete surrounding possible.

It will be found on reference to history that this condition has always been fulfilled when a force has been successfully isolated. In the campaign of 1805, for instance, the main Austrian army was in Northern Italy too far off to help Mack when he was surrounded at Ulm, while their Russian allies were too far down the Danube to be of assistance to him. Napoleon had 180,000 men to deal with the Austrian 84,000—*i.e.*, more than double the number.

In 1870, when the German III. Army beat MacMahon and drove him back, the I. and II. Armies were able to advance on Metz, cross the Moselle, cut Bazaine's communications, and

drive him back on the fortress. The abortive attempt to relieve him aimed at by MacMahon's movement by the north was frustrated because the Germans, moving by a shorter line and with greater rapidity, were able in the first place to interpose between him and Metz; while their numerical superiority, twice that of the French, enabled them at Sedan to hold the latter in front, aided by the Meuse, while they pushed round both flanks and finally encircled them.

At the opening of the campaign of 1796 the Austrians were based on the Mincio, the Sardinians on Turin; their united armies faced the French on the Maritime Alps, the Sardinians on the right, the Austrians on the left. Crossing the mountains with the bulk of his forces directed first of all against the Austrians while his left held off the Sardinians, Napoleon drove the Allies asunder in a succession of battles, gained over them alternately, so that each retreated on his own line of communication — *i.e.*, he penetrated between them. He then compelled the Sardinians to sue for peace, and turned against the Austrians.[1]

Another striking example of penetrating between the fractions of an enemy's force was shown by Napoleon in 1809, in the operations against the Archduke Charles on the Danube.[2]

We may fairly deduce from the foregoing examples that Strategical Penetration offers considerable opportunities to an able general, and that these are likely to arise from the first encounters.[3] But to take advantage of them it is necessary that the tactical successes which bring about the situation should be marked and decisive, for otherwise there is the danger that the penetrating force may be caught between the separated fractions of the enemy and itself suffer disaster.

[1] See Part II., Campaign of 1796. [2] See Part II., Campaign of 1809.

[3] The Third Army in 1870, after Woerth, may perhaps be said to have interposed between MacMahon and the rest of the French forces, although it appears rather a stretch of the doctrine to say so.

This danger is very clearly illustrated in the campaign of 1866 in Bohemia. On the 27th and 28th June Benedek was in a central position between the two masses of the Prussian forces, and from the purely strategical point of view was in a position to have concentrated a superior force against the Crown Prince, who was engaged in crossing the mountains—*i.e.*, owing to the direction of the Prussian advance by two distinct lines of operation the Austrian commander was in the position of having penetrated, or perhaps, to speak more accurately, interposed, between them. He failed to take advantage of it, and by fighting at Königgrätz exposed himself to the combined frontal and flank attack of his opponents with disastrous consequences.[1]

In 1815, Napoleon by defeating Blucher at Ligny was in a position to penetrate between him and Wellington. He failed to avail himself of it because he gave a wrong direction to his pursuing force under Grouchy, which was thus unable to retard the reunion of the Allied forces on the field of Waterloo—*i.e.*, the Prussians were able to return and combine with the Anglo-Dutch against him.

It will be seen from what has just been said that the strategical advantages gained from penetrating the opponent's forces are derived from the fact that the rending apart of his forces, owing to portions being driven back, gives opportunities of action against the flank and rear of the fractions into which they have been split—*i.e.*, of threatening their communications. Modern weapons have made flank attacks necessary for tactical victory, and hence, even if the general direction of the strategical attack be frontal, which may be unavoidable at the outset in a struggle between two great European nations with the whole national strength of each mobilised for war, it is nevertheless indispensable to direct the main tactical blow against the adversary's flank in battle.

[1] See Part II., Campaign of 1806.

In strategy, as in tactics, the flank attack is more efficacious than the frontal, and the reason is in both cases because it threatens the line of retreat or communication.[1]

Hence in any case, even if the strategical attack is at first frontal, as soon as possible it should be directed against the communications of the enemy. In the common case of a hostile army taking up a defensive position covering its communications, the best plan is not to attack it directly but the communications leading back from it. If, on the other hand, the enemy is advancing to attack, covering his communications, he can often be brought to a standstill by the opposing army taking up a Flanking Position on one flank of his line of advance, which he cannot pass by without leaving his communications open to attack. In both these cases the enemy, to deal with the situation, must deploy a part, if not the whole, of his force on a line parallel to his communications to oppose the action taken against him. The force so deployed, if defeated, is in danger of being driven back over its line of retreat and of suffering from all the consequences which ensue from the loss of it. Such action as this was possible to the French in 1870, as has been pointed out on p. 75.

The campaigns of Lee in 1862 and of Sherman and Grant in 1864 are excellent examples of the way in which it is possible to manœuvre an adversary out of a position. The defenders, M'Clellan and Pope in 1862, Johnston and Lee in 1864, were continually compelled to abandon strong positions and to retreat nearer and nearer to their respective bases. The campaign of the Wilderness (1864) is typical of what will constantly be found in future wars—viz., a strong position rendered valueless by a movement round its flank

[1] Tactical flank attack when properly carried out is advantageous because it gives a greater volume of fire against the part attacked, and in a better direction (enfilade), than the defender can reply with.

which threatens its communications. The Russian position at Mukden was rendered untenable by Nogi's attack on its right flank.

Strategical operations against an opponent's communications present two different aspects, depending on whether it is sought to cut them

1. Before the tactical blow is struck; or
2. After it has been delivered.

In the first instance, successful battle completes the operation; in the second, it is only the prelude to the main object, the preliminary success needed to enable the blow against the communications to be struck.

A good example of the former is the campaign of 1800, in which Napoleon surprised the Austrians in Northern Italy and cut their communications before they were aware he was moving against them. The loss of the battle of Marengo, by which Melas attempted to reopen his communications, compelled him to capitulate and abandon the country to the Mincio.

The second was illustrated in 1808, when Wellington defeated the French at Roliça and Vimiero and drove them back on Lisbon: he thus completely cut their communications with France, for our navy held the sea. The consequence was the Convention of Cintra, by which Junot evacuated Portugal.

These two instances show how decisive such an operation may be when conducted with the whole force. But even in the old days of comparatively small armies it was not a common manœuvre, owing to the risk the general executing it runs of exposing his own line of communications to a counterstroke by his adversary. In 1800, however, Napoleon had a second line of retreat available back to Switzerland, while in 1808 Wellington was securely based on the sea. But under ordinary conditions, with no alternative line of

communications, it is difficult for the assailant not to uncover his line of supply and retreat[1] while attempting to cut that of his adversary. If this should happen, the enemy may be able to turn the tables on the assailant, and if the latter then be defeated, he will suffer from the disadvantage sought to be inflicted on the enemy.

When operating on the left bank of the Moselle (battles of Mars La Tour and Gravelotte), the Germans directly intercepted with their First and Second Armies the retreat of the Army of the Rhine. Had they been defeated they might, theoretically, have suffered severely; but, practically, the advantage was on their side. For they had superiority of numbers, and the Third Army to support them higher up the river. Moltke rightly gauged the situation, and dared because he felt certain that he ran but little risk of being beaten.

With the huge masses of troops which now take the field, and with modern means of obtaining intelligence, it would be very difficult to carry out the operation of marching undetected with the whole army across the enemy's communications before defeating him, and the operation will usually be limited more to the form of a raid, having the interruption of supplies as its object, except in those cases in which the assailant has such an advantage in numbers that he can despatch a sufficient force for the purpose, while holding the enemy in front, or to those, like Bourbaki's, in which the latter is demoralised by defeat, and not capable of assuming a vigorous offensive.[2]

The mere severing of the railway lines supplying a large army would under modern conditions be very often decisive, and a very small force would suffice for this purpose.

[1] Tactical operations may be aimed at the enemy's flanks as a prelude to a strategical attack on the communications, but the strategical flank attack is always aimed at the latter.

[2] See Part II., Campaign against Bourbaki.

Thus in January 1871 the interruption of the German line of communications by the blowing up of the bridge over the Moselle at Fontenoy was effected by only 350 men. Had it taken place a month earlier it would in all probability have led to the raising of the siege of Paris. In 1812 Wellington destroyed the bridge at Almaraz, thus cutting the direct route for the French between the north and south of Spain, and eventually compelling them to evacuate the southern portion of the Peninsula by the circuitous route through Madrid. The late South African war shows conclusively the ease with which a railway can be interrupted with modern high explosives. The line from Naauwpoort through the Orange River Colony had to be guarded by a continuous line of blockhouses to ensure its safety. It is plain, therefore, that in future Continental wars, the large armies concerned being so largely dependent on their communications for supply, great efforts will be made by both sides to interrupt them, and the defence of communications will become a much harder matter, needing far more elaborate measures than those adopted by the Germans in 1870-71.

The operation of intercepting an enemy from his base may then be—

1. Physical — *i.e.*, simply cutting his line of communications by the destruction of a railway viaduct or a road-bridge over a river; or

2. Strategical, by placing a sufficient force across them, not only to interrupt them but also defeat the troops the latter may bring against it.

In the case of large armies, it is more probable that we shall find in future the tactical blow will be delivered before moving against an enemy's communications, although these may be physically interrupted at any time by a small raiding party. Previous tactical victory renders the direction of troops against the enemy's flank and rear much safer,

since the opponent's army being driven back and demoralised by defeat, it is possible to do so without so much risk of a return stroke from the opponent.

In 1812 Wellington was compelled by Marmont to form parallel to his communications and risk a battle, to prevent the latter extending round the English right and seizing their line of retreat to Portugal. The English commander extricated himself from the difficulty by a tactical victory; but as the French covered their communications, they merely retreated along them; for the Spaniards failed to hold a point which intercepted them. Hence the result obtained was by no means so great as it might have been. Both sides failed in their strategical attacks.

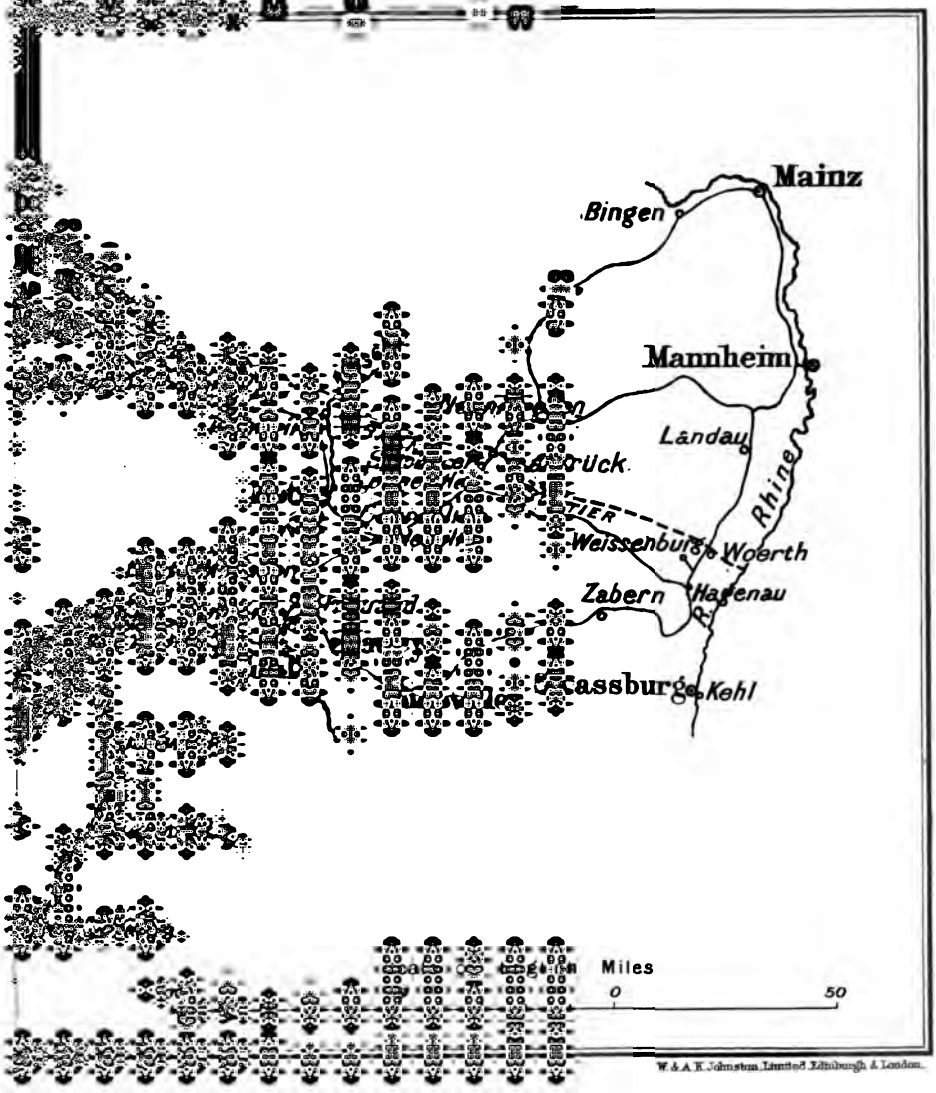
In the campaign of Jena both armies formed front to a flank, but by a prompt assumption of the initiative Napoleon secured his own line of communications, while Davout at Auerstadt drove the Prussians off theirs, and the Emperor at Jena forced Hohenlohe back and threatened his line of retreat.[1]

One of the best examples in modern times of intercepting an enemy's communications after a battle is the action of Werder with the XIV. Corps and Manteuffel with the II. and VII. Corps in 1871, against Bourbaki, which terminated in the latter being driven into Switzerland.[2]

It may be well here to point out that the Line of Communications under modern conditions often differs from the Line of Operations. For instance, when the Second German Army moved from Metz on Orleans, its line of operations lay through Troyes—Sens—Nemours—Pithiviers; but the line of communications by which stores and reinforcements were brought up was by the railway through Blesme—Chaumont—Chatillon-sur-Seine—Nuits—Montereau—Montargis—Juvisy—Orleans (see Map No. 1). For large

[1] See Part II., Campaign of 1806.
[2] See Part II., Campaign against Bourbaki.

MAP No. 1.


Mainz
Bingen
Mannheim
Landau
Rhine
Weissenburg
Woerth
Zabern
Hagenau
Kehl
Miles
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forces the greater portion of the lines of communication *must* be by railroads, whereas lines of operation will usually be, as formerly, by the main roads.

The point aimed at for cutting a line of communications should not, when completed, be more than one or two marches behind the enemy's army, otherwise the latter may evade the movement by a flank march, or even neglect it altogether, if by doing so he can reach the main objective and terminate the war. This the Allies did in 1814 when Napoleon, after his defeat at Laon, determined to act against their communications. They marched on Paris, which, not being fortified, surrendered to them. In this case the political situation was known to be such that the leaders of the invading forces felt sure that the capture of the French capital would end the struggle. Moreover, they were so close to it (Sommepuis), while the emperor was known to be so distant (viz., at St Dizier), that the supplies along the intervening length of road, which were sure to be able to come to the front to a large extent, sufficed for the length to be passed over before reaching Paris. The country, too, immediately concerned was a rich one, and had not suffered from previous military operations.

When the enemy's communications have been cut, battle should be joined as soon as possible, as it is essentially a movement which requires the seal of tactical victory.

It is difficult to decide what proportion of the army should be employed for the operation. If too small, it may be swept away; if too large, it is difficult to move without the enemy detecting the operation.

In 1808 Sir John Moore determined to cut the main line of communications of the French in Spain — *i.e.*, the road which leads from Bayonne through Vittoria to Madrid. But his force was quite inadequate to the task, and when Napoleon turned against him he was obliged to beat a hurried retreat to Corunna.

Vandamme, who was ordered in 1813 to cut off the retreat of the Allies after their defeat at the battle of Dresden, had too small a force for the purpose, and was utterly annihilated at Kulm.

On the whole, there is little doubt that, between generals of fairly equal capacity commanding approximately equal armies, it is safer for the one assuming the offensive to endeavour, as the first phase of the manœuvre, to force his adversary to form to a flank rather than directly to intercept him from his base. If successful in this and in the ensuing battle, the latter will be driven back beyond his communications, which must necessarily fall into the hands of his successful opponent (see p. 23). There is of course no reason why the former operation should not be combined with a physical interception of the enemy's line of communications, which may in itself have far-reaching effects.

An intercepted force has three courses open to it—

1. To move directly against its opponent.
2. March to the flank which leads it across his line of communications.
3. March to the other flank, and thus avoid collision.

There is little risk in the flank march to be executed by the defender in adopting the second plan. For having lost his communications he has none to cover. If he choose the third and elect to march round the enemy, he must abandon territory without a battle. If he select the first and attack him and is defeated, he is ruined. Only by successfully seizing his opponent's communications can the position be reversed, and this, therefore, forms the best counter-stroke. It is, however, a difficult one to give. For experience shows that the moment a general feels pressure on his communications he will, as an almost invariable rule, devote his energies to relieving them.

Napoleon at Austerlitz, divining from the clumsy movements of the Austro-Russian forces that they aimed at

cutting his communications with Vienna, in which direction they erroneously thought his only possible line of retreat lay, replied by an attack on the Allies' right which threatened theirs.[1]

When Lord Roberts threatened Cronje's communications the first thought of the latter was to avoid the manœuvre by retreat. But, unlike Napoleon at Hanau (1813), he was unable to push away the intercepting force, was held by the attack directed against him by Lord Kitchener, and subsequently surrounded at Paardeberg.

In 1800, when Moreau, having driven Kray north of the Danube, attempted to cut his communications on the left bank of the river, the latter marched round the outer flank of the French, and crossing the Danube at Neuburg regained his main line back through Munich on to Vienna.

To sum up what has been said in this chapter we see that—

1. The frontal strategical attack seeks to penetrate the enemy's front with a view to crushing in detail the parts into which it is riven.

2. Even when manœuvring against the enemy's front a general must always bear in mind the desirability of acting against his opponent's communications, and should do so as soon as circumstances allow, as it is the more decisive direction for attack.

In European warfare, with long frontiers fairly well covered with troops throughout their entire length, the first strategical manœuvres must be frontal—*i.e.*, directed to penetration—because it is impossible to assemble such huge forces on one flank only, and no other course is therefore available. But the operation is difficult to carry out unless the opponent has unduly dispersed his forces, or left gaps between the various fractions through which it is possible

[1] Napoleon was prepared to retreat by Znaim on Budweis, and thence to the Danube at Linz, and had as a matter of fact prepared his line of communications in that direction.

to penetrate. Even then it is dangerous unless the tactical success gained is sufficient to effectually dispose of the defeated portions of the enemy's troops, while attention is being turned to those which are thereby laid open to strategical flank attack.

On the other hand, communications are so vitally necessary to the complex modern army that it is more than ever sensitive to any attempt to interrupt them. A hundred years ago, with muzzle-loading smooth-bore guns and muskets, much less ammunition was used, and it was far easier to manufacture. The cannon-balls of the enemy could be used at a pinch; his grape and case were always useful; his powder was as good as that of his opponent and equally available; his musket-bullets could be fired, if need were, from the muskets, or could at anyrate be easily recast. Napoleon considered 100 rounds per man sufficient equipment for the Ulm campaign. At the present day at least 350 rounds per rifle are thought necessary, and neither the enemy's gun-ammunition nor his rifle-cartridges can be utilised, and the manufacture of them cannot be carried out in the field with the army. The ambulance arrangements and the quantity of food carried are all far in excess of what was provided in European war at the beginning of the last century. An army depends on its communications for all its ammunition and for a good part of its supplies, and it is imperative to keep the routes by which these are brought up free from interruption if it is to maintain the field. As, therefore, under all circumstances strategical flank attack is in itself the more efficacious, and as it usually allows a better direction to be given to the tactical flank attack, it is whenever possible to be chosen in preference to the strategical frontal attack.

Strategical penetration is desirable when the enemy has divergent lines of communication for different parts of his forces, because when subjected to tactical defeat these will

probably retreat divergently, and hence the opportunity will occur of moving between the fractions and of acting against their communications. It is also desirable when by undue extension the enemy exposes a too attenuated line to attack. Concentration of force against a well-chosen point will then render penetration fairly certain, and subsequently the several portions can be dealt with in detail.

CHAPTER X.

INTERIOR OR SINGLE LINES COMPARED WITH EXTERIOR OR DOUBLE LINES.

THE question as to whether it is more advantageous to act against the enemy by one or more lines of operation is one which has been much discussed. Napoleon was emphatically in favour of the single line, although he constantly used what is in essence a species of double lines, in the shape of a striking and containing force, as in the campaigns of 1796, 1809, 1814, and 1815.[1] He criticised the conduct of the Allies in 1815, inasmuch as their point of junction was the actual field of battle. Possibly in this case the line of his criticism was largely determined by the fact that he had been beaten by them. For the fact remains that some of the most striking combinations of war have been made by forces acting by double or exterior lines against an army moving by a single line of operations. Thus, in 1813, the converging attack of the Allies against Napoleon at Leipzig; in the same year Graham and Wellington against King Joseph at Vittoria; the battle of Waterloo, and the Prussians against the Austrians at Königgrätz, are all good examples of great results obtained by their employment.

The truth is, that before the invention of the telegraph

[1] In the invasion of Russia, 1812, he practically used three lines—viz., those of the main army and the Prussian and Austrian contingents.

it was difficult for armies, acting along double lines, against an enemy moving against them on a single line, to keep one another acquainted with what was going on. There is really no difficulty in doing so nowadays, owing to improved means of locomotion and the invention of the telegraph. Hence the danger which formerly existed that the enemy, acting by interior lines, could, without being discovered, concentrate against one force whilst holding the other, is greatly lessened. Besides, it must not be forgotten that the large armies which now take the field cannot perform the rapid manœuvres which Napoleon could undertake in 1796 with small bodies.[1] The division of large forces into a right, left, and centre, the Emperor's favourite plan, the latter being used to reinforce the wing on which the decision was sought for the moment, is no longer so easy, on account of the extent of ground covered by the much greater numbers. Again, it is difficult to keep these concentrated for any length of time owing to the difficulty of feeding them, and hence there is a tendency to move armies in a converging direction to deliver a blow rather than to keep them united from the first. This was exemplified by the Japanese in the Manchurian campaign.[2] Facility of supply is, next to a favourable line of operations, the chief consideration to be borne in mind in directing the movements of a force, and if it be divided into three or four bodies this will be rendered much easier, as more railway lines can be utilised. This fact has a further tendency to keep the fractions somewhat apart, although the general direction may be the same. It is of course essential to keep up communication between the various parts, and if this be done concerted action may be ensured, provided the distance between them be not too great.

There cannot be any doubt that in future wars we shall see many more examples of the application of this

[1] See Part II., Campaign of 1796, and *ante*, p. 30.

[2] See Part II., Manchurian Campaign.

principle of converging armies acting against a single force because of the crushing effect to be derived from strategical envelopment, as in the case of Werder acting in conjunction with Manteuffel against Bourbaki,[1] and from the enormous tactical advantage to be derived from it on the battlefield.

The chief reason put forward in favour of a single line of operations is that unity of action is best obtained by keeping the troops together in one army. Jomini says, "The formation of two independent armies upon the same frontier should always be avoided." Napoleon was of the opinion that "to invade a country with a double line of operations is a faulty combination." Now it must be remembered that the Emperor never commanded such huge forces as will in future take the field in Europe, even in 1812 when he was at the head of the largest army he ever had. In that year his failure was largely due to the unwieldiness of the enormous mass he kept together; and even he based his flanks, the Prussian and Austrian contingents, on their own countries. The disastrous result of this war is a strong argument in favour of breaking up large forces into several armies, each with its own line of communications. It is absurd to believe that if Germany invade France it would be better to marshal the twenty army corps of the former Power under one leader. It would be absolutely impossible for one man to direct them as a whole, as they would occupy a line of battle of forty miles or more. Far more useful effect could be obtained from four or five armies acting towards a common end, kept aware of each other's movements and not giving an opportunity to the enemy to penetrate between them. It is plainly a more elastic formation.[2]

The danger of exterior lines is supposed to arise from the fact that one army of 100,000, acting against two of

[1] See Part II., Campaign against Bourbaki.

[2] This was written before the Manchurian campaign. The Japanese adopted the principle advocated with great success. See also Part II., Manchurian Campaign.

50,000 each, may be able, if the latter are sufficiently far apart, to hold the one while concentrating against the other. Suppose A B C to be three points of a triangle, B and C to

Fig. 7.

be held by forces X and Y of 50,000 men, A by one Z of 100,000. Now if A B or A C be either of them less than B C, then it will be possible for Z to move 70,000 by the shorter road or interior line to B or C against X or Y, retaining the other force, Y or X, by 30,000. It is evident, then, that the army from A may thus defeat its inferior antagonist. But its retaining force is also liable to defeat. Z must, therefore, be able to leave a pursuing force to keep the defeated part of the adversary's army in check, and at the same time be able to rejoin the retaining wing with the bulk of its force in time to stop the retreat of the latter, and, in conjunction with it, defeat the other half of the enemy. To render this manœuvre safe, two or three days' march must be available. With small armies it was easy enough to carry out the proposed action, especially when, as in 1796 or '97 in Italy, the adversary acted on both sides of an impassable obstacle. In 1814, again, Napoleon, acting against Blucher and Schwartzenberg with a comparatively small force, was able to obtain great results. In this instance, however, he was largely aided by the rashness of the former and the folly of the latter, who always fell back on the slightest defeat. But no one can believe that had Napoleon, in either war, had 400,000 men, and each of his adversaries 200,000 men, he would have been able to move with the rapidity which this manœuvre requires. Moreover, such forces as these (200,000) are much more

difficult to crush than small ones, and defeat of the adversary by acting alternately against his wings would by no means be so certain.

It is, of course, evident that the distances between the three forces must be sufficiently great to allow manœuvring without the risk of the centrally acting army being caught between the two acting on exterior lines, and the force moving on interior lines must act with the greatest decision and vigour. Indeed, Napoleon, the greatest exponent of this method, always moved with much greater celerity than his opponents. Moreover, the retaining force should be able to join its main body at least as quickly as the divided portions of the enemy can concentrate, and it must take care always to interpose between the wing of the enemy it is acting against and its own main body. Failure to arrange for this being done lost Napoleon the Waterloo campaign.

Benedek in 1866 might, if he had acted with promptitude, have intervened between, and acted alternately against, the First and Second Prussian Armies. But he did not do so, and was beaten when they closed on him.[1] Napoleon in 1813 was crushed at Leipzig because he allowed the Allies to encompass him, leaving himself no space to manœuvre.

On the other hand, it is quite possible to gain the advantages of exterior lines without allowing the intervals between the parts to be so great as to permit the adversary to act in accordance with theory—*i.e.*, without running the risk of being crushed in detail.[2] If this be done, and the united enemy attacked in front and flank, history shows in the examples of Leipzig, Vittoria, Waterloo, and Königgrätz how great the effect will be. Hence in future, when perfect communication can be kept up, we shall see exterior lines commonly used because these facilitate so much the movements of large masses, rendering combinations easier and enormously facilitating supply. Of

[1] See Part II., Campaign of 1866.

[2] The four Japanese armies at Mukden operated with considerable intervals between them, and Nogi's flank attack determined the Russian retreat.

course, when armies act on exterior lines they must at all hazards support one another, as Blucher did Wellington in 1815,—that is the very essence of the situation.[1]

It must, however, be remembered, as we have seen in the previous chapter, that when an army penetrates another, then the use of Interior as against Exterior Lines will be open to the victor, who, if he conduct his operations properly, will crush one fraction of the disrupted army while holding back the other, although even in this case the crushing battle will really be a reversion to Exterior Lines (see Fig. 6, p. 80).

This principle is very clearly exemplified by the early part of the campaign of 1870. The French strategical deployment resulted in their forces being formed into two groups, the one at Woerth, the other from Saarbrück to Longeville. Facing the former was the German III. Army, opposed to the latter were the I. and II. Armies. The Germans acted on interior lines so as to interpose between them and keep them apart. MacMahon's force was crushed at Woerth, the III. Army pursued it, pushing it off while the I. and II. following the French main army finally surrounded the latter at Metz.

To sum up—the advantages to be gained from Exterior Lines will often lead to their being employed at the commencement of any phase in the operations, while very often when the wished-for blow has been struck, the movements which result from it will be conducted on Interior Lines.

This was the case after the battle of Königgrätz. The Austrians retired from it in two bodies, while the Prussians' movements were directed to keeping the two fractions apart. Previous to the battle the Prussian First and Second Armies had acted against the Austrians by exterior lines.

[1] See Part II., Campaign of 1815.

CHAPTER XI.

PURSUITS, RETREATS, THE STRATEGICAL COUNTERSTROKE.

We have hitherto considered the advantages to be obtained from various strategical operations. It is obvious that the victor in any one of them will endeavour to obtain the greatest possible results, while the defeated will seek to avoid further collision or endeavour to gain some more favourable position for carrying on the struggle. The victor pursues—the defeated seeks for safety or attempts a counterstroke.

A good deal has been written on the question of pursuits, but the study of military history will show that vigorous pursuits after battles have not often taken place. The reason of this is, that victory equally with defeat gives rise to disorder among the troops that have taken part in the fight. Moreover, troops that have long been under fire suffer from mental exhaustion, and even those of the victorious side feel, after the dangers they have gone through, they have earned a rest; it is therefore difficult to urge them on after the retreating enemy. Pursuits to be effective, therefore, must be carried on by fairly fresh troops: this means that the reserves must be employed. Now it is evident that in the case of the victorious side these will usually be some distance in rear of the fighting-line, whereas in the case of the defeated side, which has been driven back on its supports, the latter will be available to stem the advance of the victors. The increased range of weapons intensi-

fies this state of things, as reserves are necessarily held farther back on the one side to avoid fire directed at front line, while the fire from the reserves of the beaten army takes effect over a considerable distance, and hence makes it harder for the pursuing troops to advance against it. Again, in long lines of battle the result of the action, if success be gained at a point distant from the commander-in-chief's station, is very often not known soon enough to allow the latter to make the necessary arrangements for a pursuit. Hence it rarely follows that pursuits can be immediately undertaken, and more often the day after the battle is the first on which the victorious troops really begin to press forward against the defeated foe.

It is evident in the case of the strategical pursuit—*i.e.*, the advance of a large part or the whole of the army against the enemy—that if the troops have marched and fought for an entire day, they require rest before the bulk of them can undertake forward movement: thus in the case of Waterloo, although the tactical pursuit was pushed to the utmost, the bulk of the allied forces did not advance until the 19th. But then they did not stop till Paris was reached. Few commanders have pushed with the energy displayed by Blucher after his victory of the Katzbach. The pursuit of Bourbaki in 1871 affords a good example of the usual form of a strategical pursuit.[1]

Perhaps the most striking example of this operation is that after Jena, whether we consider the immense exertions of the French troops, or the unrelenting energy by which the fragments of the Prussian army defeated at Jena were finally annihilated at Prentzlau and Lubeck.[2]

The pursuit of large armies is plainly more difficult than that of small ones, on account of the enormous difficulty in moving large masses, and this applies above all to the

[1] See Part II., Campaign against Bourbaki.
[2] See Part II., Campaign of 1806.

tactical pursuit: the energy displayed by a thousand Cossacks in pursuit of the Turks from Lovtcha could not possibly extend to a large force.

Retreats may be divided into two classes—

1. In which the sole idea is safety.
2. In which the immediate object is to refit and meet the enemy again.

In the first case, avoidance of the enemy is the main object, and all must be sacrificed to this end, no matter what the direction, whether along the line of communications or off them, in which the force is compelled to retire.

In the second, retirements must always take place along the communications, because these alone lead to the depôts which give the necessary material for refitting the army.

Another point has to be considered with regard to the first-named class of retreats, should it be

(*a*) In a concentrated form, the whole of the army being kept together, or

(*b*) Should security be sought for by dispersing into different bodies.

Plainly, if it be intended to fight again soon the troops must be kept together; but if the army be so demoralised that no immediate stand is probable, then a retreat in different fractions has this advantage, that the enemy cannot determine which of these represents the main body, and it is therefore difficult for him to know whether to concentrate against some one fraction, or divide up his strength against them all. A divided retreat gives greater safety to a beaten army than a concentrated retirement.

It is on occasions like this that the value of supplies carried with the army will be felt. For the eight days' food which every European army now takes with it will confer considerable freedom of movement for that period, during which it can move with rapidity in any direction in which further support may be obtained.

As a rule, troops if badly beaten get out of hand, and will seek safety in flight along the line by which they advanced or by falling back on some place which they consider a safe place of retreat, such as a fortress or depôt. Only when retirement begins before defeat has become acute can a well-ordered rearward movement be carried out. For instance, the Prussians though defeated at Ligny were not severely beaten, and were able to retire without any difficulty to Wavre. On the other hand, at Waterloo the French held on so long that when at last they retreated from the battlefield they were thoroughly exhausted, and as the direction of the Prussian advance threatened their one and only line of retreat through the defile of Genappe, which every soldier knew and which he was conscious would be difficult to get through if there were any pressure, the bonds of order were loosened and the army became a mob. With the direct may be combined an indirect pursuit. This was done by Soult and Murat against Blucher in 1806, and by the II. and VII. Corps against Bourbaki in 1871,[1] and by the Japanese after the capture of Liao-yang. The object of the indirect pursuit is to interrupt the communications of the beaten force which is being forced back by the troops immediately following it.

The battle of Waterloo is an example of a strategical counterstroke. It was the duty of the allied armies to act together, and when Blucher fell back to Wavre and Wellington to Waterloo, it was certain that if the Emperor attacked one he would be struck in flank by the other. Another good example of such a reply is that of Napoleon at Austerlitz. He drew the Austrians and Russians on to attack him in the direction of what they thought was his line of communications, and replied to their attempt by cutting those of the Austrians. Opportunities for counterstroke often arise against

[1] See Part II., Campaign against Bourbaki.

a general who is employing interior against exterior lines, as in moving against the one body he lays himself open to counter-movement from the other. For instance, if the Austrians at the battle of Königgrätz had driven back the First Army and the Army of the Elbe, the Second Army could have relieved the pressure against the former by moving against Benedek's communications.

CHAPTER XII.

THE EFFECT OF NATURAL OBSTACLES ON STRATEGY.

THE natural obstacles which affect the conduct of a campaign are rivers, mountains, forests, marshes, and deserts. They may be direct — *i.e.*, perpendicular to the line of operations—or parallel to the latter. When perpendicular they affect operations, not only on account of the physical difficulties they offer to the progress of troops, but also because they often afford good positions for the defence to take up to oppose an advance. When parallel they affect movement to a flank and also act as a means of security to it.

Their chief influence is rather tactical than strategical. For if a hostile army is to be found in any given tract of country, it is plain that an opponent can also manœuvre there. To reach it difficulties may have to be overcome, but history teaches very clearly that in all regions in which military operations may take place — *i.e.*, all which are inhabited — the habile general will find means to use his army. The chief problem of war has always arisen from the necessity of feeding the troops, and not from the military influence of the country on the tactical operations.

The sane student rejects the statements made as to the vast hordes which followed Xerxes, because he knows that with the means then available it would have been impossible to subsist them. Napoleon, with a much smaller host,

the army to be used in another direction—*i.e.*, they assist the action of a retaining force. Thus Zieten was enabled to retard the advance of the French in 1815, behind the Sambre.[1]

To fight in front of a river unless freedom of passage over it be secured, is dangerous, as the defending army if defeated may be compelled to surrender. Had not Blucher been able to cross the Aisne at Soissons, in the example above given, Napoleon would have driven him into the river. But they serve to check pursuit, when the beaten force can retire over them, as the Elbe in 1866 after the battle of Königgrätz, or the Mincio in 1859 after Solferino.

MOUNTAINS.—Mountains may be looked upon as obstacles traversable only by certain defiles. They are, like rivers, difficult to defend by field troops unless the issues are held. This is not easy to do if the mountain-range in question is broad, as to hold the debouches of the roads beyond it would involve great extension of the troops, and those on the far side of it would be liable to defeat by superior numbers brought against them. They would then be subject to all the inconvenience of retreat through the mountains, a difficult operation if the pursuit be active. When the defence is limited to the near side of the mountains it is easy for the enemy to deceive the defender as to the point he really means to cross at by feigned attacks in other directions. If the pass is to be defended by permanent fortification, a central position is the best for them, one being chosen which commands the road in all directions, and which is not dominated by any heights from which fire can be brought to bear on the works.

However well a pass may be defended it is nearly always possible to turn it by some other path. Thus in 1877, when the Turks held the Shipka Pass, the Russians turned their defences by crossing at the Hainkoi Pass to the east of it.

In mountainous regions military operations are always

[1] See Part II., Campaign of 1815.

difficult and seldom decisive; for the nature of the ground renders the deployment of large numbers impossible, and hence only the heads of the hostile columns come into collision. The fighting, therefore, tends to partake of the nature of local combats, giving no decisive results, unless one side is able to drive back the detachment holding some one defile through which it can pour such numbers as will sweep back all opposition, and which, deploying when through the mountains, can act with effect in the plains beneath.

The campaigns of 1796 and 1800 in Italy are good examples of the ease with which a mountain barrier can be passed. Soult's campaign against Wellington in the Pyrenees (1813) shows how difficult it is to correlate the movements of different columns. All three show the difficulty of the defending force behind the screen judging accurately where the blow will be delivered.

FORESTS.—Forests are places in which the movements of infantry are fairly easy, but in which the communications are difficult, and the columns largely dependent on the supplies they carry with them. From the point of view of pure strategy, the chief advantage to be gained from them is their screening power.

In 1870 the woods on the right bank of the Saar served to cover the deployment of the German forces, and the forest of Marchenoir hid the concentration of the Army of the Loire from observation of the German II. Army. They are not favourable localities to fight in, as they render the command of troops difficult, prevent the free employment of cavalry and artillery, and render co-operation difficult. Thus Moreau defeated the Austrians at Hohenlinden as they emerged in three isolated columns from the forest of that name.

DESERTS.—Deserts are tracts of country in which no supplies of food can be obtained and water is often unprocurable. They are not likely, therefore, ever to furnish the

scene of fighting on any large scale, and may be looked upon as barriers difficult to pass because the troops must take all they want with them, but which do not otherwise offer any great physical difficulties to the passage of troops. They form an exception to the rule that all defence should be active, because it is plain that the best plan is to defend them from the hither side. The difficulty of passing them is thus thrust on the enemy, and if only he can be prevented from debouching, time must ruin him, as he will soon come to the end of his supply of water, which is difficult to carry in any large amount, while the local sources are soon exhausted.

As in tactics so in strategy, an obstacle may be used to secure a flank. The advance of the Federals up the Yorktown peninsula against Richmond was secured on its left flank by the James River, which they held. This saved them when their right flank was turned, and they had to fall back by their left to Malvern Hill.

When an obstacle is parallel to a line of operations, it is dangerous to advance on both sides of it, as the army so acting is liable to be beaten in detail unless its facilities for crossing the obstacle are greater than those of the enemy.

Napoleon at Laon, in 1814, largely owed his defeat to operating on both sides of an impassable marsh. Oudinot, at Gross Beeren, suffered defeat from the separation of his columns in a country intersected by woods and marshes, where no lateral roads permitted communication between them. In 1805, after Ulm, Napoleon advanced by the right bank of the Danube on Vienna. He kept one corps, Mortier's, on the left bank for observation purposes. Although he organised a flotilla which moved down the river with the army so as to enable him to transfer troops rapidly from one side to the other, yet the detached force was caught by superior numbers and almost annihilated.

In Russia the Pinsk Marshes compel an invader from the west to move north or south of them, and thus guard a considerable portion of the frontier.

The case of 1814, in which Napoleon took advantage of the fact that Blucher advanced by the Marne while Schwartzenberg marched by the Seine, could scarcely be carried out under modern conditions, for each leader would have known the exact position of the other by telegraph, and the rivers in question would not have been formidable obstacles to a modern bridge-train. But in the campaign itself the Emperor, dividing his force into a right, centre, and left, was enabled with either wing to hold the adversary opposite it on the river he was advancing by, and throw the rest of his force against the other — *i.e.*, he acted on interior lines, and the operation was made possible by the French containing force having a strong position either on the Seine or on the Marne.

CHAPTER XIII.

FORTRESSES.

FORTRESSES are erected because they render it possible to occupy a given position with fewer troops, and because, being constructed at leisure, they can be made so strong as to compel the enemy to expend much time and labour in taking them. They are desirable if they do not absorb too many troops for their garrisons; but they only exercise a relatively passive influence on the campaign, and can never take the place of field armies. For every fortress can be invested, and a very few days' work on the part of the investing force serves to create defensive lines which the besieged troops are quite powerless to break through. This was clearly proved in the cases of Metz and Paris in 1870.[1]

To fortify all the important points of a country would be to multiply indefinitely the number of fortresses, and experience shows that they are very often erected where they are of no utility, while points which turn out to be of real importance in the course of operations are left unprotected.

Many of the old fortresses of France in 1870, such as Lichtenberg, Marsal, were of little real value. On the

[1] The difficulty of breaking through investing lines is due to the fact that the besieged have always to attack a concave arc. Their assaults, therefore, must always be direct and difficult. Moreover, it is hard for them to prepare them by previous artillery fire from the permanent works. Any attempt to break the investing line must consequently be by counter-approach, and this is a lengthy and difficult process.

other hand, Metz, Toul, Thionville, Mezières, Peronne, and the other northern fortresses, were obstacles which for a long time hampered the German line of advance.[1]

Had Orleans been fortified by the French in 1870, it would have had an important effect on the march of events subsequent to Sedan, for it covered the junction point of many railroads from the south, east, and west of France, and would have afforded a supporting point for the French armies in their efforts to relieve Paris, from which it is only distant five days' march. Similarly in the hands of the Germans it afforded valuable assistance to their operations in this region, and it was this fact that led them, after the second occupation of the town, to commence works round it.

In future wars it is probable that many similar cases will arise. To defend such positions preparation must be made beforehand by having in reserve heavy guns, howitzers, and material with which bomb-proof shelter can be quickly extemporised. In these days, as all civilised countries possess railways, there is no difficulty in bringing up the necessary appliances for such structures, and we have seen in the South African war vast quantities of material used for the erection of blockhouses to guard the lines of communication and block the retreat of the Boers.

Plevna is an excellent example of a fortress which was improvised at a point which circumstances rendered one of strategical importance. Sebastopol, Vicksburg, and Petersburg are others. Dresden in 1866, which covered the line of communications of the Prussians through Saxony, and served as a supporting point for the garrison which held down the inhabitants, was surrounded by provisional fortifications during the campaign. It was also Napoleon's practice to make use of provisional fortifications to secure his immediate base. Thus in 1806 he fortified Kronach,

[1] See p. 121 for details on this head.

Coburg, and Bayreuth. Wittenberg was also made defensible to command the passage over the Elbe.

It is desirable to protect the capital of any country which has a highly centralised system of government administration. The fortification of Paris, therefore, is important for the defence of France. In 1814 and 1815 the war terminated with its capture: it was then an open town. In 1870 the fact that it was fortified protracted the conflict many months. On the other hand, the pernicious influence of too many fortresses is clearly shown in 1813, in which year the French had garrisons holding many points in Germany. These in nowise affected the struggle, whereas, had the men forming them been available for Napoleon's armies, he might have been successful in the field.

The over-multiplication of fortresses, therefore, is plainly undesirable. But so long as they are constructed in accordance with a sound strategical plan, they are useful. Intrenched camps which command the railways leading to an open frontier, will confer manœuvring power on the army of the nation they belong to, as they will enable it to issue on the flanks of an invader trying to pass them, and will serve as temporary bases for operations or as pivots on which to manœuvre. Moreover, until one or more of them falls, it would be difficult for the assailant to penetrate far into the country, as they block the railways, which are needed by him for supplying his armies.

Such fortresses, however, should cover a considerable area of ground, otherwise they are useless to the troops based on them—*i.e.*, they must possess a widely pushed-out ring of detached forts to protect the central position from bombardment. They are then called Intrenched Camps. A mere enceinte open to bombardment is of little utility, as it must soon fall if attacked by modern guns. During the Franco-German war many French fortresses of this description yielded after a short bombardment.

But the construction of an intrenched camp capable of resisting modern artillery is a very formidable and costly affair. Bombardment is efficacious at 10,000 yards, and it follows, therefore, that the outer ring of detached posts must not be less than seven miles from the point covered. This gives a perimeter of about fifty miles, and admitting that the main forts may be three miles apart, involves the construction of sixteen of them, besides intermediate works of less importance. A garrison of at least 32,000 men would be required, a considerable force to shut up and isolate from the field army. To have many such places would be to rob the latter of the greater portion of its strength, while there can be no doubt that, as a rule, mobile troops would have far more influence on the conduct of the campaign.

Moreover, fortresses to be of any value must be capable of being put in a state of active defence immediately war is declared, and this involves very large expenditure for armament and supplies to be kept in constant readiness, all of which adds to the cost inflicted on the nation. Any other than a first-class fortress, such as described, is of no real value, as it can be quickly reduced by modern artillery firing high explosive shells. For a Continental Power to defend all possible points in such a manner would be very expensive, and judging from the experience of the past it is highly probable that any fortress built would be out of date after ten years.[1]

The main point to bear in mind, therefore, in constructing fortresses (intrenched camps) in peace-time, is that they should only be used for very important purposes, such as—

1. To bar important lines of operations or railways (Toul, Belfort).

[1] Very few of the fortresses which were constructed in Europe between 1870 and 1890 would, so far as their permanent defences are concerned, be able to resist modern guns. The former might serve as supporting points for improvised works, but this can hardly be held to justify the huge sums which have been spent on them.

2. To cover important places, such as—
   (*a*) The capital (Paris, Rome).
   (*b*) Arsenals, dockyards (Spandau, Portsmouth).
   (*c*) Important junctions of roads or railroads (Lille, Maubeuge).
   (*d*) Debouches through obstacles (Belfort, Quetta), or over rivers (Metz, Mainz, Strassburg).

3. To form strong strategical positions, as in the case of the pentagon of French fortresses,—Langres, Epinal, Belfort, Besançon, Dijon,—which is intended to shelter an army, and which, being on the flank of the line of advance of the Germans when invading France, would compel them to detach a very large force to observe it.

In all the above instances intrenched camps have been constructed because the ring of detached forts was in each case necessary either to cover the central position from the enemy's fire or to ensure sufficient space for manœuvring purposes.

Small works, purely military structures containing no civilian inhabitants, may be constructed in places safe from bombardment by their situation, where, comparatively speaking, small works will stop the passage of hostile troops. Examples of these are the French barrier forts constructed to bar the passages of the Vosges, the Italian and Swiss forts covering the Mont Cenis and St Gothard roads, and the Austrian mountain forts in the Tyrol.

As a broad general rule it is better to expend a nation's money on organisation and on railways, which facilitate an active defence and the assumption of the offensive, rather than on multiplying fortresses which, under modern conditions of accurate shooting and high explosives, are not likely to be capable of any prolonged resistance. France since 1871 has spent £100,000,000 on such works, Germany has not spent a tenth part of this sum. There is no doubt which has been the wiser nation.

[1] The *région fortifié* of Brialmont.

CHAPTER XIV.

RAILWAYS—ROADS—WATERWAYS—TELEGRAPHS.

In modern war railways are used for three purposes—

1. For the strategical concentration of troops on the frontier.

2. For the supply of armies during the war.

3. For the movement of troops in the theatre of war, and for the evacuation of sick, wounded, and prisoners.

So far as the first use is concerned, military considerations will suggest the construction of lines required for the purpose, which civil enterprise might not otherwise construct, and should ensure the necessary arrangements for the entrainment and detrainment of the various units forming the army in accordance with the plan selected for their concentration.

This last duty requires considerable labour on the part of the general staff in peace-time. Time-tables must be prepared, and arrangements made for feeding the troops during their transit to the front. It will be necessary to arrange with the railway companies as to the part their officials should take in combination with the military authorities, and the latter must understand the exact points where rolling-stock should be accumulated, and how much will be required. Proper arrangements must be made for detraining at the points of concentration. The rolling-stock should be so constructed that, while answering all the purposes of commerce,

it may be suited for the conveyance of men, horses, guns, and carriages. On the Continent the number of men or horses that a goods waggon will take is marked on it in peace time. In England this is not done, nor are the types of waggons in general use so suitable for military transport.

The transition from the ordinary daily routine of a railway line to the carriage of large bodies of troops, with their equipment, &c., is necessarily a heavy task, and can only be properly carried out if every detail has carefully been thought out beforehand. It is of course impossible to entirely suspend all civil traffic, for the inhabitants must still receive their ordinary food-supplies. Arrangements must be made for this which to a certain extent will interrupt the military transport, unless a line has a complete double set of rails, as in the case of some British railroads, when one pair could be kept for military and the other for ordinary passenger and goods traffic.

The German practice is to divide the twenty-four hours of the day into six equal sections, one of which is allowed for repairs and to permit trains to make up time, and in each one of the others one train is reserved for unforeseen circumstances. It is calculated that the number of trains per section will vary from 3 to 8 on a double line, from 1 to 4 on a single line, depending on its construction, the nature of the country it goes through, the gradient, and the interval between stations. This last point is an important factor. Not more than one train is allowed between any two stations; the time therefore taken to pass the greatest station interval will govern the number permissible per hour. Other factors to be taken into consideration are the times occupied in entraining and detraining the different units. These depend entirely upon the facilities which exist or can be constructed. In foreign countries, at many stations, special care has been taken to facilitate the loading of waggons and gun-carriages, and the rolling-stock is constructed with regard to military

requirements. In England it is true that we possess such an enormous amount of stock that so far as the movement of men is concerned there would be not the slightest difficulty in transporting any number of them in second- and third-class railway carriages. But the trucks used for gun-carriages and waggons are not well adapted for the purpose. The number of really low-side trucks available is comparatively small. High-side trucks, as a rule, have a central side opening which admits no military carriage. Trucks which load

ADDENDUM.

The Table given on page 119 should be altered as under:—

For Cavalry regiment, 3 trains, *read* 3½ trains.
For Ammunition column, 3 trains, *read* Divisional ammunition column, 9½ trains.
For Cavalry brigade, 9 trains, *read* 10 trains.
For Mounted brigade, 14 trains, *read* 15 trains.
For Infantry division, 83 trains, *read* 82 trains.
For Cavalry division, 61 trains, *read* 62 trains.

These alterations are necessitated by the changes in the last division of the 'Field Service Pocket-Book,' published since this work was printed.

speed of 15 miles per hour; on the metre gauge the speed does not exceed 13½ miles. Three metre gauge trains carry about the same as two on the standard gauge. The actual capacity is painted on the end of each carriage.

[1] Taken from the 'Field Service Pocket-Book.'

On the standard gauge the number of trains required by various units is as follows:—

Infantry battalion	2 trains.
British cavalry regiment	4 "
Native " "	4 or 5 "
Horse battery	3 "
Field battery	2 "
Field ammunition column	3 "
Infantry brigade	8 "
Cavalry "	19 "
Infantry division	52 "

Both at home and in India our system is to run short trains; the Continental plan is to use trains double the length of ours which run somewhat slower. The British plan appears to be the better. Long trains are more difficult to manage, and must be divided if the gradients are severe; they are more liable to accident, and, so far as we are concerned, are opposed to the general principles on which our trains are run.

The increased rapidity of the strategical concentration, compared to what was possible before railroads, is enormous, and confers a great advantage on the side which possesses the best railway system. To appreciate this, it is only necessary to compare the time taken by the Germans to concentrate on the French frontier in 1870, a question of days, compared with the months required by the Russian army to traverse Germany in 1815. In 1870 the German troops were moved to the front along nine railway lines. In fifteen days 1205 trains conveyed to the frontier 456,000 officers and men, 135,000 horses, 14,000 guns and carriages, and the armies crossed the French frontier within three weeks of the outbreak of war. In 1815 Waterloo was won and the fate of France settled before the Austrians and Russians reached the Rhine.

The increased capacity of railways, compared with road-carriage, has, moreover, enormously facilitated the supply of armies in the field. Without them, indeed, modern large forces could not be kept concentrated.

The sketch map, No. 1, shows the main lines of railroad which served for supply purposes to the Germans in France in 1870-71. At the opening of the war, their First, Second, and Third Armies were deployed along a line from Saarbruck to Woerth. Thence they advanced—the First and Second against the Moselle, and the Third in a somewhat more southerly direction, towards Chalons. Before the Germans blockaded Metz (19th August), they had opened and were working the line from Saarbruck to Metz, as far as Courcelles. On the 23rd August a second line for supply was available from Weissenburg, through Nancy, up to the neighbourhood of the fortress of Toul, which at that period was in the hands of the French. Thus they had two lines of railway at their disposal almost as soon as the war began.

Until Metz yielded, the most northern of these two lines was of no avail beyond Courcelles. To connect it with the line Metz-Nancy, the Germans constructed a railway from Remilly to Pont-à-Mousson, some twenty-three miles in length, which was finished on the 23rd September.

During the operations in the Argonnes and Ardennes, the supplies had to be taken from the Nancy railway by road, because Toul still blocked the way. This fortress, however, fell on the 23rd September, and the railroad was then opened through Blesme-Epernay to Nogent l'Artaud by the 28th September, and with great exertions to Lagny, about thirty miles from Paris, by the 21st November. But while Metz and the northern fortresses of Thionville, Mezières, &c., held out, the line through Metz to the north was not available, nor indeed did it become so until January 1871, when the war was nearly over.

During the greater part of the siege of Paris, therefore, for the investing force, for the operations of the First Army in the north, and of the Second Army on the Loire, the

whole of the supplies for these forces had to be taken over the one line from Frouard to Blesme.

The capacity of this portion of railway was limited to sixteen trains per diem, of which three were allocated to the First Army, three to that of the Meuse, four to the Second Army, and six to the Third Army. The nine trains available for the troops besieging Paris (Third and Meuse Armies) were only sufficient for supply purposes, and it was impossible to bring up sufficient guns and ammunition for the regular siege of the capital until the end of December.

These facts show the great difficulties of supply for such large armies as took the field in the 1870-71 war. They have been vastly increased by the enormous growth in numbers which has taken place since that war; for the armies of to-day would probably be at least double what they were in 1870-71, and the difficulties of supply have increased in a corresponding ratio.

The evacuation of the sick and wounded is much facilitated by railways, and has resulted in a great saving to human life. During the Franco-German War, 300,000 French prisoners were sent by rail to Germany with very small escorts. To have marched them would have abstracted a large number of men from the fighting armies, while to have fed them during the march would have doubled the strain on the commissariat.

Railroads permit the easy transfer of troops from one theatre of war to another. Thus during the campaign on the Loire (1870) 28,000 infantry, of the 15th French Corps, were sent from Salbris to Mer and Vendôme between 7 A.M. on the 27th and 9.20 P.M. on the 28th October, followed on the next day by 16 batteries, two cavalry regiments, ammunition columns, &c. In November of the same year, 40,000 men of all arms were forwarded in 88 trains from Besançon to Gien in three days. These movements were well conducted. But, on the other hand, when the attempt

was made to transfer Bourbaki's army from the Loire to Doubs, the movement was unduly prolonged owing to bad arrangements, and the fact that sufficient rolling stock had not been accumulated beforehand.

It is of course easier for the defensive side acting in its own country to use the railways than it is for the invader, as the former is safe from the hostile acts of the inhabitants. Large operations, such as those of the French above mentioned, would be difficult to carry out in a hostile country. Still, during the same war, the Germans made considerable use of the railways on a smaller scale for this purpose. Thus the First German Army, when operating in the north, had to contain the French towards the sea-coast from Rouen, while meeting the main attack of Faidherbe from the north towards Amiens. The line between these two towns was used to transfer troops from one to the other, in accordance with the requirements of the case.

When the VII. Corps was moved towards the Lisaine, the 14th Division was brought from the country about Metz to Chatillon-sur-Seine, the fighting portion taking seven days on the journey.

While the operations were going on south of Paris, trains were kept in readiness to take down troops from the beleaguering forces to those acting in front of Orleans. To reinforce the First Army for the battle of St Quentin on Jan. 19, the 16th Brigade and a battery were ordered to be sent from before Paris. Want of rolling stock and other difficulties, however, prolonged the time of transit, and only three battalions were able to take part in the battle.

This shows that it is difficult to employ railroads for tactical purposes — *i.e.*, in the immediate area in which fighting is taking place — although certain instances to the contrary exist. Thus, at Montebello in 1859, Forey brought up reinforcements to the French and assisted to defeat the

Austrians. In the same war the latter received additional troops during the battle of Magenta. At the battle of Bull Run, some of Johnston's troops, brought up by rail to join Beauregard, helped to gain the Confederate victory.

From an English point of view, three separate cases of the use of railways have to be considered—

1. Concentration at ports of embarkation for foreign expeditions.

2. Concentration for the purpose of defence against a hostile landing.

3. The use of railways in a foreign country which we are invading.

The first case requires no comment: special military trains would be worked by the ordinary railway administration.

For the second, possession of the lines would have to be taken, under the Regulation of the Forces Act, 1871, section 16, and under the National Defence Act, 1888, section 4. The railways would then be worked under joint civil and military administration, and all rolling stock would be withdrawn from the threatened coast behind the points at which the forces would be assembled.

In the third instance we should probably have to ship rolling stock from this country. This might involve us in considerable difficulties, unless great care were taken to select engines suited for the turntables, and carriages adapted to the platforms. It is the duty of the Headquarters Staff in peace-time to ascertain our requirements in these directions. The Germans go so far in their preparations as to keep in readiness girders to reconstruct bridges which the enemy might blow up in retreating. When it is a matter of choice whether troops should be moved by road or railroads a simple rule decides which is the quicker. If the time of entraining plus the time of detraining plus the time of transit be greater than the time taken to march, then it is better to go by road, and *vice versa*.[1]

[1] A half battalion of infantry with the regimental transport takes about 45 minutes to entrain; a squadron 40 minutes; half a battery 1 hour. Detraining takes about the same time, or a little longer.

The restoration of destroyed railroads will be one of the main duties of an invading army, as we have recently seen in South Africa. Large numbers of technical troops will be required for the purpose, and their efforts will often need supplementing by those of civilian contractors.

However great may be the utility of railways, still roads must always be used for the concentration of armies after arrival at the points of detrainment, and for movements of troops within the immediate area of actual operations. In England we are not nearly as well provided with roads for military purposes as Continental nations are. There are very few country roads with more than twenty-four feet available roadway; byroads are often only fifteen feet wide, and it would be difficult to calculate on an average of more than eighteen feet. Such roads will only take infantry in fours, cavalry in half-sections, and a single gun or waggon. Moreover, they are usually enclosed with hedges, banks, or ditches, with no space at the side available for infantry. In continental Europe, on the other hand, there are roads expressly constructed for military purposes, the centres paved, with ample space on one or both sides for infantry to march, and of such a width as to enable troops to move on a fairly broad front.[1] Such roads, called *chaussées*, are found in considerable numbers, and even the second-class roads are wider and better adapted for military purposes, in addition to which the absence of hedges and other divisions of ground over the greater portion of Central Europe facilitates the movement of troops by the side of the roads, the latter being reserved for the wheeled carriages of the army.

Both the number of the roads and their condition affect military operations. For rapid deployments, short columns —*i.e.*, many roads — are necessary; and in planning out

[1] According to Lewal, only 13 per cent of the roads in Germany are under 20 feet wide, 64 per cent are from 20 to 27 feet wide, 23 per cent run from 30 to 40 feet in width.

operations, troops should always be divided up among as many roads as possible, consistent with a timely concentration for fighting.

The broad rules which govern strategical marches are: that when the enemy is at a distance the troops may be spread out to a certain extent so as to allow the resources of the country to be made use of; but that when collision is imminent, everything must be subordinated to tactical requirements—*i.e.*, the columns must be gradually drawn in and the front narrowed, so that it may be easy to deploy for fighting purposes, and the columns must be capable of mutual support. No rule can be laid down on this head—it is largely a question of timely warning by the advanced cavalry; but when action is imminent, the front should rarely exceed one and a half times the fighting front, and should be less if possible. This of course involves the use of all available roads, some of which may be very poor in quality, and the breaking up of the force into as many short columns as possible, and hence the rule that it is desirable to give each infantry division a road.

It follows, therefore, that early intelligence is of vital importance in these days of large forces, for otherwise it would be necessary to keep armies massed, with all the accompanying disadvantages—viz., exposure to the weather owing to the want of shelter for the troops, and difficulty in feeding them. For only a small amount of food can be obtained from the country, when large forces are concentrated, and supplies must be largely brought up from the rear. This is very difficult to manage when troops are moving rapidly, and the supply waggons have to go back to refill at the advanced depots and catch up the troops again while advancing.

The Independent Cavalry must, therefore, be sent on a sufficient distance ahead of the army it belongs to, to give

early intelligence of the movements of the enemy; and, plainly, the question of the distance apart of the columns, and the length they may occupy along the various roads, depends a great deal on the information which the cavalry leaders send in. Their intelligence and activity, therefore, will be a very large factor in determining the arrangements made by the army leader.

We must further consider what is the largest force of troops that can be moved on a single road, still retaining the capability of concentrating for action. If a column is to deploy for action on its centre, it will manifestly take but half the time required to form up on its head. If, then, we consider the time required in the latter case, evidently double this number of troops can be moved on a road, if it be possible for the leading half to fall back for deployment, while the latter half performs the same movement to the front.

A British division takes up about 11⅛ miles of road with the fighting portion of its troops, and, allowing the mounted services to move somewhat more rapidly than the infantry, would take about four to five hours to deploy. If two were marching one behind the other each with their trains attached, and considering that each of the latter occupies about 3⅝ miles, then if the first fell back to deploy, and the second moved to the front for this purpose, even admitting that the train of the former could be got out of the way by side-roads, it is plain that to complete the fighting line would require about six to ten hours. If the train of the leading corps were to march behind the second, which would be highly inexpedient except for a day or so, then the time required for concentration would not much exceed six hours.

Plainly, then, not more than two British divisions should ever be marched on one road, and not more than one unless

the army commander is prepared to draw back his leading troops for fighting.

Numerous examples in war show the difference in marching times over good and bad roads.

Thus in 1815 Wellington, retreating from Quatre Bras to Waterloo (eight miles) by a paved *chaussée*, was able to effect the movement with ease, while Grouchy moving over a bad road only progressed about five miles on the same day. The weather in this instance affected the question, as Wellington moved off earlier, before the rain came on. Napoleon following in pursuit was only able to bring a part of his troops to the field of Waterloo that night, because the wet weather impeded his march. The time of year also affects the marching capacity of the troops, as in winter a less amount of daylight is available. So also does extreme weather—*i.e.*, excessive heat, rain, or snow and ice.

The value of waterways as communications which greatly influenced campaigns in former days—*e.g.*, Wellington in 1815, fearing for his right because of his communications by the Ghent-Ostende Canal, and the Scheldt to Antwerp—has been considerably diminished by the invention of railways.

When armies became large, as in 1805 and 1812, and endeavoured to move rapidly, it soon became difficult to feed them. For instance, in the advance from the Rhine to Ulm, a considerable amount of suffering was experienced by the French troops owing to the difficulty of living on the country, and the impossibility of feeding them from supply trains, as these could not keep up with the troops. This difficulty was greatly accentuated in 1812. Huge masses of men were then moved along a single road. The head of the column fed itself, more or less, on the country, which was thinly inhabited and did not yield much in the way of supplies; the rear was supplied from the provision trains, but the centre was practically starved, and before any important

fighting took place a large part of the army had dispersed to live.

In neither of these campaigns did the direction of the rivers aid supply. On the other hand, in the latter part of 1805, and in 1809, the Danube, which formed a main artery through the theatre of war, greatly facilitated the bringing up of supplies to the front.[1] The Elbe was also of value to Frederick in his campaigns in Bohemia.

Still, in these days of universal railways, the latter have practically superseded water-carriage in civilised countries. Thus in 1870 the Rhine was only used to bring up provisions from Holland and the lower part of its course to Worms and Bingen; troops were not carried on it. In fact, as large steamers are necessary for the transport of troops, it is evident that they can only be moved by river when the latter is wide and deep, as in the lower portions of the Rhine and Danube. In considering, then, the influence of rivers on a European theatre of war, the facility of communication which they afford, and which is increased by the fact that good roads, owing to the easy gradients, are usually found along their banks, is no longer so important as formerly.

On the other hand, in uncivilised countries, rivers are still of the highest utility, provided they are not liable to be frozen over, because it is so much easier to move supplies by them than by waggons or pack animals. The Nile campaign of 1885 is a good example of this fact.

Canals are not of much utility for military purposes unless in flat countries, when they are free from locks, as the pace at which the barges can move on them largely depends on the time they take to go through the latter. They have been used in France for moving troops, as in the strategical concentration of the French Army on the Netherlands frontier in 1815.

[1] See Part II., Campaign of 1809.

The question of sea transport hardly comes within the scope of this work: suffice it to say, the numbers which can be taken on board ship depend very greatly on the length of the voyage and the climate in which the operation takes place. For a short trip, as across the British Channel, very large numbers can be carried in modern steamers. For a voyage to Egypt or down the Red Sea, much more accommodation would be required. It must be remembered also that large over-sea expeditions involving voyages of any length cannot be undertaken unless the Power undertaking them possesses the actual and complete command of the sea. Transports are easily destroyed even by small torpedo vessels, and no nation would be justified in sending a fleet of transports to sea unless it could be done with perfect safety. To venture the lives of a thousand or more men in a single ship, unless its voyage is fairly secure, would be a risk no government would dare to run. In the Russo-Japanese war the Japanese took care to contain the main Russian fleet in Port Arthur before transporting their troops to Korea. Their navy not being sufficiently numerous, they were unable to blockade the Russian cruiser squadron in Vladivostock, and the consequence was the latter was able to commit some havoc on trading ships and to sink two transports.

The use of telegraphs has been previously alluded to. Their introduction has facilitated the combined operations of forces moving from different points, but at the same time has rendered their combined action more open to interruption, because of the ease with which the adversary becomes acquainted with their movements, owing to the impossibility of keeping them concealed for any length of time.[1] Thus Moltke was able to direct the general movements of the German forces in different parts of France with

[1] See p. 35.

a facility which would have been impossible in former days,[1] and his agents kept him fairly well informed by telegraph of the fresh organisations of the French and their movements.

All armies have an organised system by which field telegraphs can now be laid so rapidly that within the immediate neighbourhood of an army they can always be depended on. The result is, that for operations like the defence of the Lisaine in 1871, communication has been much facilitated between the parts held. Round Paris and Metz, the Germans kept the various fractions of the blockading forces connected by their use. In the Russo-Japanese war Oyama directed the Japanese operations from a point considerably in rear of the front of operations, because the telegraphic communications were so good that he could rely on accurate news from the fighting line. Placed in a position where he was free from the local influence which may affect a general who is close up to the battlefield, he was able to act with calmness and decision. The II. Corps was sent in on the German right flank at Gravelotte when it was scarcely desirable to do so, Moltke being influenced by the fighting which he saw going on round him. In the case of the Japanese, it must be remembered that the length of the line of battle was so great that a commander-in-chief who approached close to any one part of it would have been still more liable to think that the action going on there was *the* decisive one, and thus to have allowed it unduly to influence his decisions. This was avoided by keeping beyond the immediate area of conflict but in constant communication with all points by telegraph and telephone.

The telephone is an important auxiliary to the telegraph, with the great advantage that conversations can be carried on through it. It was very largely used in the Manchurian

[1] Important instructions were, however, often sent by messengers (*Feldjägers*). Thus were conveyed the orders to Werder to fight on the Lisaine, showing that Moltke declined to trust to the telegraph alone.

war, especially by the Japanese, not only for communication to the rear but also to keep up connection between units on the battlefield itself.

It must, however, be remembered that in a hostile country telegraph or telephone lines are liable to constant interruption, and the general relying only on them for directing the operations of troops at any considerable distance from his headquarters might find himself at the most critical moment deprived of all knowledge of what some fraction of his forces was doing, while the enemy might be perfectly aware of its movements. When Frederick Charles was advancing from Vendôme to Le Mans, the telegraphic communication between the XIII. Corps, which formed the right wing and the centre of his army, was constantly broken. This objection would, of course, not apply to lines passing through country entirely commanded by the force using them—*e.g.*, the immediate rear of an army.[1]

[1] It is impossible to say without actual experience what the worth of wireless telegraphy will be; but, broadly speaking, it seems likely to be of use for communication between distant forces and between a besieged fortress and the outside world. It seems possible that wireless telephony may eventually become feasible, which would enormously facilitate the communication of information and orders.

CHAPTER XV.

THE SUPPLY OF ARMIES IN THE FIELD—PROTECTION OF COMMUNICATIONS.

An army in the field takes with it supplies of food for men and horses, besides reserve ammunition and material of war to replace that expended during the operations. As these are used up, fresh supplies are needed. So far as the ammunition and equipment are concerned, these must be furnished from the Ultimate Base and brought up along the line of communications; but food for the troops may be obtained—

1. By purchase in the theatre of war.
2. By requisition.
3. By quartering them on the inhabitants.
4. From magazines established on the line of communications or Immediate Base.

Very often a combination of the four may be employed, and no definite rule can be laid down as to which method will predominate.

When an army is stationary it cannot live for any lengthened period on the neighbouring country, but may attract supplies from a distance by cash purchases in the open market.

Thus in 1870 the German troops, when Metz was first besieged, soon exhausted the available supplies in the country immediately surrounding, and provisions had to be brought up along the line of communications. On the other hand, the Second Army, when operating north of Orleans, found that

high ready-money prices speedily brought in provisions at a time when ordinary requisitions utterly failed. Ready-money purchase on the spot was the system largely employed by the British in the Peninsula.

Requisitions should be made in accordance with the prescribed regulations. It is our usual custom to pay for them at reasonable rates, but the foreign practice is merely to give a receipt for what is obtained, which may or may not be paid for after the termination of war. They are enforced by the advanced cavalry of a moving army, or by special foraging parties. In either case it is best to obtain them through the medium of the local authorities.[1]

It is generally estimated that in Western Europe, troops marching on a tolerably broad front can be subsisted from local resources so long as they are in movement. An army corps marching on a front of about five miles and a depth of nine can be thus provided for, and might be followed at a short interval by a similar force. Experience shows that even an army of 100,000 to 120,000 men can, without being so far separated as to compromise its co-operative action in case of battle, subsist without magazines or any special arrangement for supply during an advance that is only interrupted by halts of a single day's duration at a time. If a considerable stay is to be made in a district, even though the latter be itself a rich one, the resources of the country must be supplemented by bringing supplies for the army from a distance.

If an army be closely concentrated it is impossible for it to live on the country unless it be exceptionally rich, as is clearly shown from the campaign of 1805.[2]

When the inhabitants are compelled to support the troops, care must be taken to evenly divide them in accordance with the supply capabilities of the various houses. It is never a very satisfactory method, and often leads to the troops committing excesses, especially in a hostile country.

[1] See 'Field Service Pocket-Book,' pp. 51 and 157.

[2] See p. 31.

When large forces are concentrated and marching quickly, the only feasible plan is to supply them from the magazines in rear, supplemented by purchase or requisition, the last named being especially employed for forage for horses. The method of supply from magazines is briefly as follows:—

Supplies are accumulated in the home country and sent forward to the Immediate Base, and thence to a depôt usually within a day or two's march of the rear of the army, called the Advanced Depôt—the position of which will be varied from time to time in accordance with the movements of the troops, and from which they are taken to the army by means of the supply and transport with which the latter is provided. Up to the Advanced Depôt the arrangements are under the General of Communications; from it to the army they come under the Director of Supplies, who is under the Quartermaster-General.

It is usual, when an army proceeds far from its Immediate Base, to form Intermediate Magazines between it and the Advanced Depôts to facilitate the supply and avoid drawing directly from the base, as this, if the distance were great, would result in trains loaded with provisions and stores blocking up the lines. To such points as these the supplies which the theatre of operations can furnish will be drawn in.

Thus, prior to the investment of Metz, magazines were formed at Courcelles and Remilly for the First and Second Armies. The Second Army had considerable difficulty in arranging for its supply during its march from Metz to Orleans, and the subsequent operations in that neighbourhood and to the west. Markets were opened at Orleans, Etampes, Joury, and Chartres, and to these cash payments at high prices brought in sufficient for the needs of the troops, for whom a magazine was formed at Orleans.

In operating in countries where railway or water carriage cannot be utilised close up to the troops, the organisation of the supply service for the advance troops is an exceedingly difficult matter. The state of affairs under such conditions

would be similar to what occurred in 1805 and 1812—*i.e.*, unless roads be numerous and the number of waggons large, it would be difficult to bring up food sufficiently rapidly to the troops, and the latter would have largely to depend on what could be obtained from the inhabitants. The slowness of the Japanese advance in Manchuria was largely due to the fact that there were no roads, while the only railway at first available was of a different gauge to that used in Japan, and a third rail had to be laid and the rolling stock brought by sea.

When the Third and Meuse Armies wheeled up to the right to meet the French at Sedan, no railways could be used beyond Nancy, and the troops had chiefly to subsist on the provisions they took with them. The supply waggons and live cattle could not follow immediately after the troops, and neither requisition nor purchase furnished what was required. As a general rule the men were compelled, therefore, to eat their reserve rations and to trust to some of the supply waggons to replenish these. Fortunately a considerable quantity of French provisions were taken at various points, as at Carignan, where enough for seven days for an army corps were captured by the Guards, but the troops began to suffer about the time of the battle, while the French prisoners endured great hardships from the total breakdown of their own commissariat, and the difficulty that the victors had in bringing up food for them.[1]

There may be occasions during a campaign in which, for military reasons, it is necessary to move for some distance from the advanced depôt, as in the example given above. All modern armies are therefore provided with a Field Magazine or Supply Park, which moves with the troops, and which carries reserves of food. This organisation in savage warfare or in countries which yield no appreciable supplies is of the highest importance, for on its efficiency depends the whole mobility and striking power of the army.

[1] To aid their countrymen, provisions were sent by the French authorities from the fortress of Mezières.

The reserves of food for the men consist of—

1. The reserve, and fresh rations carried by the men or horses.
2. The regimental supply.
3. The departmental supply—*i.e.*, that in charge of the Army Service Corps or analogous organisation.

The following table gives the number of days' food carried by different armies with the troops :—

TABLE D.

Country.	Men's Rations.	Oats.
Austria	9	7
France.	8	7
Germany	6–7 cavalry 8–9 other arms	Riding horses, 6 Draught " 7
Italy	8	4
Russia	12	5–6½
England	7½ and 1 day's groceries	5½

The ammunition reserves for the troops are similarly divided between the Ammunition Columns which move with the various units and the Artillery Park which acts as a reserve to the former.

The necessity for proper supply and transport arrangements is clearly shown in Bourbaki's operations on the Lisaine. His troops were not provided with the necessary amount of wheel carriage, and hence they were tied to the railway for supply.

Our armies have constantly to make war in countries where neither railroads nor proper roads exist, and this involves the creation of large Field or Movable magazines.

In the Abyssinian war supplies for the entire forty days' march were thus carried to Magdala.

Sometimes, as in the march from Kabul to Kandahar, in addition to the field magazine, supplies may be obtained by purchase on the road. In this case the line of communications

was practically abandoned between the point of departure and the objective.[1]

In Zululand (1879) the line of communications was maintained by fortified posts at intervals along the road when the Second Division and Flying Column advanced to Ulundi, but in this instance also a field magazine for the troops marched with them.

Field magazines may consist of pack-animals, as was the case during the Peninsular War, wheeled carriages as is usual in Europe, or carriers as employed in the Ashantee expedition. Where a river is available, as in the Nile operations, it forms far the best means of communication in an uncivilised country, as much larger amounts of stores can be taken by boat than by pack-animals or waggons.

A line of communications requires protection, and special troops are told off for this purpose, placed under the command of the General of Communications.[1]

In 1870-71 the total number of troops used to protect the German communications was 29,000, in addition to which 90,000 were employed in holding conquered territory, and these of course largely assisted in guarding the railway lines.

The method of protection used in civilised countries is to hold important towns and villages; bridges and fords over rivers; bridges, tunnels, and cuttings on railways, where traffic might be easily stopped. The points thus held would usually be about ten to fifteen miles apart, the garrisons varying according to circumstances. In addition to these posts, flying columns should be kept in readiness at certain stations prepared to move to any threatened point.

In January 1871, 350 French succeeded in blowing up the bridge at Fontenoy, near Nancy, thus interrupting what, one month before, had been the only railway line available to the Germans.

In uncivilised countries the same principle of protection would be applied, the details varying with the nature of the

[1] See 'Field Service Pocket-Book,' p. 26.

country concerned. In the Boer war, against a highly mobile enemy, it was found necessary to hold the railway lines by blockhouses, at intervals of about a mile, connected by wire entanglements. This fact brings home very forcibly the difficulty of guarding so easily interrupted a means of communication as the modern railroad.

It is always a difficult matter to change a line of communications, as it is impossible to suddenly stop supplies coming by one route and send them by another. It may be desirable to do so if a better and shorter one become available during the operations, but it is always well to get the new line in working order before abandoning the old one.

Napoleon, after Jena, changed his line of communications from the long road back to the Rhine at Strassburg to the shorter one through Fulda to Mainz. Wellington in 1813 abandoned his communications through Portugal when he was able to establish a shorter line to the northern coast of Spain. The chief, and indeed only, advantage of defensive strategy is that if the army adopting it be operating in its own country, it can so easily shift the line by which stores and provisions are brought up, especially if the land be well supplied with railways. In the second phase of the 1870-71 war the railroads alone made the movements of the French troops possible. For as they were unable to organise a proper system of wheel transport, they could not have moved without their aid. As it was, the want of military train rendered all distant enterprises impossible, compelled the French to remain close to the one source of supply, the railway, and rendered their operations slow and halting.

CHAPTER XVI.

THE INFLUENCE WHICH MORAL FACTORS, AND ESPECIALLY THE PERSONALITY AND CHARACTERISTICS OF AN OPPONENT, EXERT ON STRATEGY.

THE previous chapters have, it is hoped, made clear the general principles which guide the conduct of a campaign. But it must never be forgotten in transactions of the character of warlike operations that definite rules cannot always be rigidly applied; for war is a bloody drama in which the passions of men play a great if not an overwhelming part and influence the course of events. Plainly, therefore, the mental attributes and attitudes of the combatants must be given due consideration, and it is precisely in the proper appreciation of this fact that the genius of great commanders has been displayed.

"He who risks nothing gains nothing," and the saying, attributed to Moltke among others, "First ponder, then dare," expresses clearly that occasions may occur when deviations from accepted principles are permissible because the end to be gained justifies the risk.

It was Napoleon's opinion that in war the moral is to the physical as three to one, by which he meant that among other factors of a psychological nature the mental attitude of generals, as affected by their personal characteristics and the effect on them of the incidents of war, forms an important

factor in determining the right course of action to be used against them. This mental attitude is reflected in the troops they lead.

The presence of a Napoleon or a Wellington with the army gives confidence to it. Troops who have been led to victory by a tried commander will believe in him in days of difficulty and danger, because they trust to his capacity to overcome all obstacles. The fact that he is present with the opposing force will make the other leader cautious.

During the fighting in the Pyrenees in 1813 Wellington came up alone to the scene of battle. "One of Campbell's Portuguese battalions first descried him and raised a joyful cry; then the shrill clamour, caught up by the next regiments, soon swelled as it ran along the line into that stern appalling shout which the British soldier is wont to give upon the edge of battle, and which no enemy ever heard unmoved. Suddenly he stopped at a conspicuous point, for he desired both armies should know he was there, and a double spy who was present pointed out Soult, who was so near that his features could be distinguished. Attentively Wellington fixed his eyes upon that formidable man, and as if speaking to himself, said, 'Yonder is a great commander, but he is cautious, and will delay his attack to ascertain the cause of these cheers; that will give time for the sixth division to arrive, and I shall beat him!' And the French general made no serious attack that day."[1]

Speaking of his great rival, Wellington said he considered Napoleon's presence in the field to be equal to 40,000 men, and he explained what he himself characterised as a somewhat loose statement, by saying that his presence put an end to all the jealousies of the French marshals, and thus gave the French army unity of action, while his knowledge of war and the fact that he was military chief as well as sovereign with the power of reward, excited the exertions of all, so that it

[1] Napier's History of the War in the Peninsula, &c., vol. v. p. 226.

is clear that wherever he went he carried with him a very obvious advantage.

Napoleon's view on personal influence is aptly expressed in his own words, "In war men are nothing—the *man* is everything."

His just estimation of the value of his opponents was one of the sources of his success. Thus in 1814, fighting against Blucher and Schwartzenburg, he knew that the former was impetuous and the latter ultra-cautious, and he based his measures against them largely on the attributes of his two adversaries.

His opinion of Mack doubtless added greatly to the confidence he felt in acting against him in 1805. Speaking of the Austrian general in 1800, when the latter was a prisoner of war, he said: "Mack is one of the most mediocre men I ever met in my life. Full of conceit and vanity, he considers himself fit to do anything. He is nothing now, but I should like to see him some day opposed to one of our good generals; he would see fine things. He is very self-confident, and that is all; he is one of the most incapable men possible, and, in addition, he is unlucky."[1]

In his preparations for the battle of Austerlitz the Emperor deliberately avoided occupying what he described as "the excellent, safe position of Pratzen, for," he went on to say, "if I do not occupy that position I shall probably induce him to turn my right flank, which will not then be so well in touch with the rest of the army; but while the enemy is engaged in this too-extended movement I shall advance in close order and inflict a complete defeat upon him." On the 1st December, the day before the battle, the Emperor therefore contented himself with ordering his troops to take up their respective positions, and, carefully observing the enemy's movements, "with unspeakable joy" he saw them

[1] Frederick the Great said on the question of luck, "This man has no luck—I have no use for him."

enter the trap he had laid for them and begin their turning manœuvre. So confident was he of the result that, strolling that evening as was his wont among his troops, he announced the forthcoming victory, and said, "While they march to my right wing, they will expose their flank to me."

Napoleon left no stone unturned to raise the enthusiasm of his troops or to conceal from them facts which might damp their courage. He thus before a fight would constantly under-estimate the number of troops opposed to him, while after the fight he would deliberately understate his own numbers and exaggerate those of the enemy. Such was the Emperor's character for veracity that "to lie like a bulletin" has become a proverb. The method of Frederick the Great was different. Addressing his general and staff officers before the battle of Leuthen, "he made no attempt to conceal from them the losses he had suffered in the previous fighting, but told them he counted on their zeal, constancy, and that courage and love of country which had always animated them, and that they must snatch from the enemy the advantages he had obtained. He asked them to point out these things to the officers, and even the soldiers of the army, to prepare them for the great events that must take place. That they must attack the Austrians wherever they could find them, regardless of numbers." Roused to enthusiasm by the words of the king, the soldiers gained for him the battle of Leuthen, and inflicted on the Austrians one of the most striking defeats they ever suffered at the hands of the Prussian monarch.

The exaltation produced by repeated victory gives a moral confidence to the men, and renders them capable of deeds of which they would otherwise have been incapable. Great were the sufferings of the German soldiers when they moved up to Sedan to capture the last of the Imperial French army, but they bore their fatigues uncomplainingly. "When we left the roads leading west and advanced north

on the 17th August, I heard the men laughingly say, 'To-day the command is "By army corps right wheel."' And on the 25th August, when another change of direction to the north was made, they called out, 'By armies right wheel.' The confidence of the army as to a successful issue equalled that which a devout Christian reposes in Providence. Thousands and thousands fell by the wayside. These were cheerily assisted by those whose strength had not given way. A man, totally worn out, would be left behind with a laugh, 'He'll come on presently.' Lying on the top of a pig-sty another called out, 'I am living on the first floor, and got it cheap too.' The severe rains and thunder-storms were joked at."[1] The mental attitude of the German troops was due to the unbroken series of victories from Weissenberg to Gravelotte.

Wellington spoke of his Peninsular army as one that could go anywhere and do anything. Its fighting capacity was the outcome of the confidence in their leader and the continuous run of success they had had against the French. Müffling, at one time chief of the staff to Blucher, speaks thus of the troops he had seen fighting at Waterloo:—

"For a battle there is not perhaps in Europe an army equal to the British. The British soldier is vigorous, well fed, by nature brave and intrepid, trained to the most vigorous discipline, and admirably well armed. The infantry resist the attacks of cavalry with great confidence, and, when taken in the flank or rear, British troops are less disconcerted than any other European army.

"These circumstances in their favour will explain how this army, since the Duke of Wellington led it, has never yet been defeated in the open field."

Marshal Bugeaud said, "The English infantry is the most magnificent in the world; happily there is but little of it." His opinion was based on what he had seen fighting against it in the Peninsula.

[1] Letters on Strategy, by Kraft Prince Hohenlohe Ingelfingen, vol. i. p. 87.

There can be no doubt of the fighting capacity of the British soldier at that epoch; yet such is the influence of leadership that the very men who had carried the British flag in an unbroken series of victories from Vimiera to Toulouse were beaten when they went to New Orleans by hastily raised levies, against which they were led in a manner that showed the hopeless incompetence of the British commander.

Troops are easily influenced when fighting; the effect of the unknown and unexpected is always great; a sudden burst of fire from an unexpected direction will bring an attack to a standstill; a cry that the ground is mined will cause the boldest troops to recoil.[1]

It is the moral effect of the determined attitude of those who lead the attack that alone renders escalade possible, for it is evident that the few men who mount the ladders first must always be in a minority compared with those they are attacking.[2]

Beaten troops never march as well as those who are successful, and the common remark made by ignorant critics who note that the victorious side has marched better than the defeated, and attribute the victory to this fact, prove that they are ignorant of the records of military history, which show that rapidity of movement has always been an attribute of the victory.

Patriotism, which is a purely moral sentiment, has a great effect in war. The deeds of Hofer in the Tyrol, the heroic defence of Saragossa by the Spaniards, the dogged determination of the British troops on the Ridge at Delhi, which led them to despise the enormous odds against them until with a loss of one-third of their numbers they had wrenched the capital of the Moguls from the rebellious sepoys,—all these are examples of the bravery which is inspired in troops by love of country, and which leads them to despise death in the cause for which they are fighting.

[1] See 'Napier's Peninsular War,' vol. iv. p. 121. [2] Ibid., pp. 114, 115.

CHAPTER XVII.

THE INFLUENCE AND LIMITS OF SEA POWER.

AN Empire like Great Britain, of which the larger portion is separated from the mother country by the sea, must possess sufficient naval strength to ensure the maintenance of uninterrupted communication with its outlying territories; for unless the line of communications between the two is securely maintained, the latter will certainly fall to any Power which can bring sufficient armed strength to bear on them for attack. This is perfectly plain in the case of small possessions, such as Gibraltar, Hongkong, or the West Indian Islands. It is also true of the larger ones, even of those having great internal resources. For instance, if Canada were attacked by the United States, it would require aid both in men and material from the mother country. To convey these safely across the sea we should first require to dispose of the American navy. India in the same way attacked by Russia would have to be supported from England across the ocean, and we must for the safety of our transports ensure naval supremacy.

On the other hand, the two latter dependencies are secure against mere raids, because their land defences—*i.e.*, their armies — would be sufficient to resist any military force which such an over-sea expedition could land. It would not be possible for a foreign nation to attack them, except over-land, as they are in themselves of the nature of

a small nation, or unless it possessed such supremacy on the sea as would allow it to transport very considerable forces for the purpose. In other words, possessions approachable only by the sea are safe so long as the latter is commanded by the navy of the mother country.[1] The Navy, then, is all-sufficing for the *coast defence* of those portions of the Empire which are insular. But it plainly cannot defend those liable to attack by land,—these require an army. Troops, moreover, are required to defend the ports, dockyards, and coaling stations on which the naval efficiency depends.

Before going further it is well to understand distinctly what we propose to do when we talk of defending the Empire. We have seen in chapter v. that a mere passive defence will never secure great results in war. This is true even of the navy. To apply to it the term First Line of Defence is therefore a misnomer. It is our First Attacking Line wherever sea operations are required. Captain Mahan, the well-known American writer on naval matters, clearly explains this. He writes as follows:—

"The word 'defence' in war involves two ideas, which for the sake of precision in thought should be kept separated in the mind. There is defence pure and simple, which strengthens itself and awaits attack. This may be called passive defence. On the other hand, there is a view of defence which asserts that safety for one's self, the real object of defensive preparation, is best secured by attacking the enemy. In the matter of sea-coast defence, the former method is exemplified by

[1] It is true that small possessions, or special points in large ones, such as dockyards or coaling stations, are open to raiding attack, and must therefore be secured by land defences. Powerful fortifications are not required, because such attacks as these points would be open to, as long as the fleet maintains its supremacy, can only be undertaken by cruisers, which cannot run the risk of attack by guns on land, while their supply of ammunition is so small that for their own safety they would not dare to expend much in any such enterprise. Moreover, their crews are not numerous enough to allow them to put on shore large landing parties.

stationary fortifications, submarine mines, and generally all immobile works destined simply to stop an enemy if he tries to enter. The second method comprises all those means and weapons which do not wait for attack, but go to meet the enemy's fleet, whether it be but for a few miles, or whether to his own shores. Such a defence may seem to be really offensive war, but it is not; it becomes offensive only when its object of attack is changed from the enemy's fleet to the enemy's country. England defended her own coasts and colonies by stationing her fleets off the French ports to fight the French fleet if it came out.[1] The United States in the Civil War stationed her fleets off the Southern ports, not because she feared for her own, but to break down the Confederacy by isolation from the rest of the world, and ultimately by attacking the ports. The methods were the same, but the purpose in one case was defensive, in the other offensive."

"The confusion of the two ideas leads to much unnecessary wrangling as to the proper sphere of army and navy in coast-defence. Passive defences belong to the army; everything that moves in the water to the navy, which has the prerogative of the offensive defence. If seamen are used to garrison forts, they become part of the land forces, as surely as troops, when embarked as part of the complement, become part of the sea forces."[2]

From the above it clearly follows that true naval defence is found in the offensive action of the navy. But this necessarily comes to a stop on the coast-line of an opponent. Here the fighting power of the navy comes to an end and

[1] The following extract from a despatch of Nelson's confirms Captain Mahan's views and shows the essentially offensive character of the blockade of the French ports at the beginning of the last century: "I beg to inform your Lordships that the port of Toulon has never been blockaded by me, quite the reverse. Every opportunity has been offered to the enemy to put to sea, for it is there we hope to realise the hopes and expectations of our country." So spake the great sea-captain, and his views still hold the field.

[2] The Influence of Sea Power upon History, p. 87.

the army steps on the scene. When the navy has gained undeniable sea-supremacy then comes the turn of the army to carry the war into the enemy's country. The failure to appreciate this very self-evident division of the parts to be played by the two forces has led to disastrous results. A study of the history of our country shows most plainly that we have failed in war times out of mind because we have never had an army adequate to the requirements of the Empire. We lost America not merely by our tactless methods of governing our colonial brethren, but also because we sent a foreign hireling soldiery to conquer them, as we were not able to place sufficient British troops in the field. We allowed Napoleon's career to go on unhampered because we could put no sufficient force in line of battle on land.

We are rightly proud of our naval victories in 1805, but we must remember that in that year Napoleon was only at the beginning of his great campaigns, by which he laid all Europe at his feet. From 1805 to 1814 we were at incessant war with him; from 1807 no organised French fleet existed outside French ports. In 1811 Lord Minto announced that the French flag was nowhere to be seen flying from Cape Comorin to Cape Horn. We possessed in those days such undeniable command of the ocean as in all probability no Power will ever hold again. And yet these nine years were the greatest of the Emperor's life; and from 1805 to 1812 his career was practically one of almost unchecked conquest. Why was this? Because although our ships swept the sea and our money served to keep on foot the various coalitions against the Emperor of the French, we had no adequate army to help them. Trafalgar was an event of the highest importance, but it was fought the day after Mack surrendered at Ulm.

Had we possessed a proper military force the Emperor's career might have been brought to an end in 1807. This year was the second phase of his invasion of Prussia. In

1806 he had swept all before him, and the Prussian army had surrendered at Prenzlau and Lubeck. But in the beginning of the next year he had to deal with the remnant of the Prussian forces, and with their Russian allies who had come up to help them. He fought the battle of Eylau on the 7th February, which, to say the best of it, was a very doubtful victory. The weather was terrible, and the French in a sorry plight. At this juncture Russia begged us to help her in the struggle. Had we had a sufficient army available for the purpose, we should in all probability have driven Napoleon back to the Rhine; but while we were organising and hesitating, unable to make up our minds, there came the French victory of Friedland, and our opportunity was gone. Had we been able to act, how many thousands of lives would have been spared to Europe! How many millions of money have been saved to this country!

It is true that the Peninsular War played a considerable part in bringing about the fall of Napoleon, but it might have done so much more rapidly had our rulers properly understood how to direct our military resources.[1]

But where should we have been in the Peninsula without our German and Portuguese troops and without our Spanish allies? It should be remembered that from the days of Agincourt to the present time we have never fought on the Continent without allies—*i.e.*, our military strength has never sufficed for the duties that our position in Europe has imposed on it. Do we at all appreciate the fact that at Waterloo there were only 26,000 British troops out of the 67,000 on the field in the Anglo-Belgian-German army commanded by Wellington? Have we forgotten how hideously our military system broke down in the Crimea, and that we endeavoured to overcome our deficiencies by the miserable expedient of the Foreign Legion, a resource which the adoption of universal service by all the fighting nations

[1] See *ante*, p. 14, as to the misdirection of our forces.

of Europe has taken from us? The naval bombardment of Alexandria was futile, a mere blow in the air, because we were not able at once to follow it up on land. In South Africa we had to supplement our regular forces by large irregular levies. These, however efficient they may have been against the Boers, would have been quite useless in European warfare. Our military system hitherto has never given us the numbers we require, and few of our statesmen seem to appreciate the fact that we require an army somewhat proportionate to the task required of it. And yet the part played by the army in building up the Empire is plainly written in the records of our race. The fleet has ensured the passage of the troopships across the sea, but it has been the troops landed from them that have conquered the territories which have from time to time been added to our widespread dominions. India, Canada, South Africa, have all been bought at the price of our soldiers' blood, although the navy rendered their gallantry available by obtaining free and unhindered passage for them over the ocean highway.

It is plain that great as has been the part played by our navy in the making of history, it has never been able to do without the assistance of the army, and evidently therefore *on the conjoint action of our naval and military forces the maintenance of our Empire* depends. A little consideration will also show how impotent we should be at the present day without a proper army For the only nation we could beat by nearly pure naval action is Germany. We could destroy her navy and her commercial fleet, and then conquer what few colonies she possesses at our leisure, with very small assistance from the army. But to deal with Russia or the United States of America we need an army to supplement the navy.

Now it is doubtless true that for all practical purposes the mere passive defence of these realms can be safely intrusted to the navy. This has practically always been the

case, although our ancestors have not always thought so, and most foreign nations of the first rank consider an invasion of England within the bounds of possibility. But a mere defensive will not suffice; we must be able to do more than merely defend ourselves. And even for defence there are two points which must not be forgotten with regard to naval war.

Modern fleets are not so numerous as those of a hundred years ago, and the ships composing them are much more vulnerable. It was difficult to sink a wooden line-of-battle ship; but a single torpedo, or a few shells, may send an ironclad to the bottom in a very short time. In naval battles the number of ships which will be thus totally destroyed will bear a much larger proportion to the number engaged than was the case in former wars. Chance will play a great part in the encounters, and it will be quite within the range of probability that one fleet will annihilate another if at the commencement of the battle it scores distinctly against its rival.[1] This element of luck will tell disastrously against the side which fails to secure it, for it will find its inferiority in numbers growing constantly greater until it is no longer able to keep the sea. Given that luck falls to our side, we should sweep the ocean until not a single enemy's flag was to be found on it. But suppose it fell to the other side; then we might for a time lose the command of the narrow seas, and an invasion of this country would be comparatively easy. For the shipment of troops across the narrow seas is not very difficult, since large numbers can be crowded on modern steamships. Given a temporary command of sea, if only for a few days, it would be perfectly feasible to land a force of such a size in England as would be impossible to beat without an adequate army.

[1] This argument—i.e., the rapidity with which great loss may be inflicted, printed before the naval battle of Tsu-Shima, was distinctly shown to be true by it. Judging from the experience of the Russo-Japanese war, it does not seem probable that the ram will play any part in future naval war, as ships cannot come to close quarters without being irreparably damaged by modern projectiles.

Now, as the possibility of naval defeat is so much greater than it was a hundred years ago, it is impossible to feel absolutely secure from invasion unless we make it certain that no invading force could have any chance of success when it landed. This means an army to defend England. For the proper defence of the British Isles differs only in degree from the defence of a naval base in some distant sea—*i.e.*, it is passive in character *quâ* defence. The navy relies on the Ultimate Base, England, for ships, supplies, repairs, ammunition, and men; for a war which lasted for anything but an extremely short time it could not do without it. Similarly our ships look to their Immediate Naval Bases abroad for coal—their very life,—for ammunition, and in some cases for repairs. In both cases, as we have seen from Captain Mahan's definition, the shore defences belong to the army. What may be called, then, the ultimate defence of this country depends on the army, just as does the defence of the distant naval bases. Now it is quite sure that any adequate organisation of our army for its proper *rôle*, the attack, would give sufficient military force to England for its passive defence, and hence it is that we need only regard the army from the offensive point of view—*i.e.*, as intended to carry the war into the enemy's country. If this be adequately provided for, no nation would under any circumstances dare to invade us, as it would be certain of being met with superior numbers on landing.

The theory sometimes put forward, that if we lost our naval supremacy we could be starved into surrender, requires considerable more proof than the mere assertion to which the arguments in favour of it have hitherto been limited. In the first place all the nations of Europe are not so inspired by hatred of ourselves as to be ready to sink their own differences and combine against us. France is hardly likely to help Germany and Russia to destroy the naval power of a state which might be very useful to her in opposition to the

former. The Russian navy will be for some years a negligible quantity. If this be admitted, while it is easy to conceive a temporary command of the Channel might be gained, it is difficult to believe our whole battle fleet could be destroyed. Even if it were, there would still be our cruisers left, and in sufficient numbers to protect grain ships coming to our very extensive littoral, which could not be effectually blockaded by all the fleets of Europe against fast steamers. There is also the fleet of the United States to be considered, which could certainly be used to protect its commerce. Lastly, there is the available store of food in England, which would probably last long enough for us to regain the supremacy of the seas.

An expression which is often heard, "a fleet in being," requires some explanation.

After the battle of Beachy Head, 1690, Lord Torrington was attacked for not engaging the French fleet more decisively. His defence was that he did not want to run the risk of destruction of his ships. He said: "Had I fought otherwise . . . the Kingdom had lain open to an invasion. What, then, would have become of us in the absence of his Majesty and most of the land forces? As it was, most men were in fear that the French would invade, but I was alway of another opinion, for I always said that while we had a *fleet in being* they would not dare to make an attempt."[1]

A fleet in being may be described as an intact fleet which is capable of acting against a fleet of transports: it is in a similar situation to that which a force on land occupies when it takes up a position to the flank of an enemy's line of operations — *i.e.*, it can act against its communications. For example, the Russian fleet at Port Arthur was on the flank

[1] It is a curious comment on those who always claim that a navy alone is wanted for the defence of the country to note that Lord Torrington evidently contemplated circumstances under which an army might ultimately have been needed for its safety.

of any Japanese expedition to the Pe-che-li Gulf. The Japanese therefore continued it—viz., held it—at Port Arthur, and did not send out their transports until it was incapable of acting against them. On the other hand, the Russian fleet in being at Vladivostock was no source of danger to such an expedition, because it was too far off and was not powerful enough to deal with the Japanese fleet with any hope of success. But it was "a fleet in being" to some extent, and did considerable harm to commerce, and even destroyed two transports and some merchant vessels.

Napoleon, when he proposed to invade England, thought that it was first of all necessary to get an overwhelming force in the English Channel so as to be able to deal effectively with the British fleet before moving his transports, because he could not do so until he had gained complete sea supremacy.

CHAPTER XVIII.

THE PRESENT POSITION OF TACTICS AND THE EFFECT OF TACTICS ON STRATEGY.

THE perusal of the foregoing pages will, we trust, have established two main facts, viz. :—

1. The rapidity with which troops can be concentrated for the opening of a campaign owing to the introduction of railways and steamships.

2. The sensitiveness of modern large armies to any injury to their communications, as their size renders them largely dependent on the provisions and stores brought up from the rear.

Railways permit the placing of the whole manhood of a nation in the field, and are vital to its efficient maintenance there. War is so costly under modern conditions, both in money and blood, that every nation engaged in it endeavours to arrive as quickly as possible at a decisive conclusion. A struggle between two European nations could never be protracted to the length of the Boer war; for it would be fought over a much smaller space, and the numerous battles which would take place and the losses which would arise from them would tend rapidly to impress the minds of the citizens of the unsuccessful nation, and bring about that state of feeling which leads to peace.

It must not be forgotten that, large as was the force we placed in South Africa, no collision which took place there would ever have been called a battle in European warfare. There were some few which might have been dignified by

the name of "engagement," but most of the encounters were mere petty skirmishes. The reason for this is not far to seek. The Boers never had an army in the true sense of the term, and never tried to fight an action with their concentrated forces. They wisely sought success in the harassing methods of guerilla war, in the conduct of which their want of organisation was of no particular detriment, while their great mobility enabled them to move with ease over a long distance, strike a blow, and then disappear. Our communications were, therefore, much open to attack, and, owing to the impossibility of our force living on the sparsely inhabited country, more than usually indispensable. The Boers displayed not the slightest trace of any knowledge of strategy; their operations show no definite plan, no leading General Idea. Their National Policy gave them the initiative, but they took no real advantage of it. Instead of concentrating their forces for the conquest of Natal, they frittered them away in blockading Ladysmith, Mafeking, and Kimberley. The only example throughout the war, though that a brilliant one, of a true strategical manœuvre, was the advance of Lord Roberts across Cronje's communications, which resulted in the surrender of Paardeberg. A similar advance through Ermelo on Koomati Poort after the relief of Ladysmith would doubtless have led to equally great results. But the Natal Field Force remained too long inactive after relieving Sir George White's troops, and thus afforded no real assistance to the main invading force.

It would, however, be a great mistake to deduce too much from the lessons of the Boer war for application in Europe. The conditions of war at the Cape are totally different. To say that tactics found successful against an irregular foe in a half-settled country like South Africa would be equally appropriate in highly-developed Europe, well provided with roads and railways, and densely populated, against

a well-trained and well-equipped modern army desirous of giving battle, would be erroneous. The same reasoning applies to the war in Manchuria, which, although fought by completely up-to-date forces, took place in a country very different from Europe. But if we bear in mind the different conditions, and note the results obtained from the latest forms of weapons, there is still much that is useful to be learned from these conflicts.

Strategy and tactics together form the Art Military. Strategy may prepare, but tactics must put the seal of success on the operations before they can be regarded as a complete whole; nor can the strategist forbear to consider in his calculations the effect that tactics may have on them.

Take the prologue to the drama of War, the Strategical Deployment on the frontier. The strategist wishes to conduct this undisturbed by incursions of his opponents. Such incursions must necessarily be rapid, as they must, to be successful, partake of the nature of surprises, and can only therefore be undertaken by mounted troops. They must be opposed by the same arm. Hence it follows that each side will cover the development of its army with cavalry, and each will seek to penetrate the other's cavalry screen with a view to deranging the deployment arrangements. The first act, then, will be a series of cavalry combats.[1] It is plain that the best led troops will gain the day, and that these, rending aside the veil of horsemen which covered the opponents' front, will penetrate through it, and reach their deployment zone. The damage done will depend on the preparedness of the advanced troops to receive it; but as these will largely be infantry, the cavalry must be able to act on foot against them.

A modern European war will then be ushered in by a series of cavalry combats in which, whether for offensive purposes against infantry or for defensive purposes when holding out against the raiding action of the enemy's horsemen,

[1] The dirigible balloon seems likely to be of use for reconnoitring purposes at this stage and before battles. It will also be employed for taking messages to distant points.

the cavalry will have to act both on horse and on foot, and leave no effort untried to gain information or prevent the opponent doing so. For modern large armies cannot be turned hither and thither like the small forces with which wars were fought before the Napoleonic era. To enable the general directing them to act effectively, he must know in broad outline what his adversary is about. Cavalry is the only arm that can get the information and bring it back rapidly to him.

The course of action thus laid down for the mounted arm is an extensive one, and costly in horse-flesh. Our experience in South Africa enforces once more the well-known fact that horses suffer more than men from the fatigues and stress of war. Napoleon found this true in the Jena campaign. The reserves of horses he had got together for his heavy cavalry—*i.e.*, that portion of the force more especially intended for the day of battle—were all used up by the light cavalry employed in front of his army on the advance to Jena and in the subsequent pursuit of the beaten Prussians. But at all costs the cavalry of the future must be kept fully mounted, for its employment in advance of the modern army is a necessity for the proper handling of the latter.

It is in helping to carry out these duties that the bicyclist will find his true *rôle* as the auxiliary of cavalry. The great space occupied by the machines will prevent the employment of cyclist infantry in large masses. It is not difficult to see that 4000 bicycles on one road—*i.e.*, four battalions or a brigade—would occupy such a great depth that the men could neither rapidly deploy for action nor regain their means of locomotion easily if driven back. But small parties of men on cycles would be of the greatest utility with cavalry patrols. They would form a valuable support, capable of moving along roads with even greater rapidity than the horsemen, though they could not, like them, move across country, but capable

of holding on to a point while the men on the horses went to ground inaccessible to the cyclist. Moreover, the horses of the patrols would be saved the fatigue of coming back rapidly with information, which can be done at a much quicker pace by an accomplished cyclist. The latter, too, can carry on his back light tools or a few pounds of high-explosive. In the future, then, the cyclist must be the comrade of the horseman. So long as the motor bicycle is not noiseless it does not seem wise to employ it in duties where the sound made by it would betray its presence.

It is impossible to believe that cavalry as cavalry can be used in a pitched battle as part of the attacking or defending line, certainly not in the former. It is an axiom that a well-covered line of infantry possessing a clear field of fire is safe from a frontal attack of its own arm. How, then, can the larger target formed by the cavalry soldier, especially in mass, possibly hope to survive the ordeal by fire and reach the enemy? The few remaining advocates of ancient cavalry tactics ignore the vast range of modern rifles and their tenfold-increased rapidity of fire. They talk of Bredow's charge at Mars-la-Tour, and ignore the failure of Margueritte at Sedan. Occasionally on the defensive small bodies of cavalry may be able to obtain some measure of success, if the ground permit them to hide close to the infantry line and debouch rapidly on the flanks of the attacking troops, through a gap covered by their own foot-soldier's fire but not actually occupied by them. Yet such accidents of ground must be few and far between, and the utmost that could be gained from a cavalry success of the nature indicated would be a temporary check to the infantry attack, widely different from the decisive effect of the mounted arm at Rosbach or at Dresden. On the offensive it is absolutely impossible that such opportunities should occur. Space for its employment must first of all be found, and this cannot be obtained without the infantry and artillery at that portion of the field ceasing fire. Even then,

if the ground were sufficiently open to allow the cavalry to advance over it, the attack would inevitably be brought to a standstill by the tremendous fire to which it would be exposed. Moreover, the mere physical obstacle which the fallen men and horses of the front line would offer to those who came on after it would break up coherence in the second or third lines, and it is on close order that cavalry depends for shock. If, on the other hand, the fire-power of the defender is so diminished as no longer to be dreaded, the task of the cavalry is then merely to complete the victory really gained by the infantry. This is a secondary use for the arm, very different from employing it as the primary weapon to win the fight. The charge in open order will often be employed against dismounted cavalry or a thin line of infantry. The Boers showed towards the end of the South African war that it could be done; but their charge at Roodeval was not at all the same as one of closed horsemen on formed infantry.

Henceforward the employment of large masses of cavalry on the actual battlefield where the rival infantries are struggling for supremacy will be impossible. The chief employments for this arm will be found in covering the advance of its own troops and preventing the enemy's horsemen obtaining information about them; rapid operations, such as wide outflanking movements on the day of battle; in capturing by surprise distant points weakly held; and, above all, in raids against the enemy's communications. The deeds of Stuart of American fame, of Forrest and Morgan, and of Sheridan, will undoubtedly be surpassed by a capable modern cavalry leader having at his disposal a force of horsemen, cyclists, truly mobile artillery, and engineers. For the result to be gained from the destruction of the railways needed for the supply of an army is far greater now than ever was obtained in former wars by any movement against an opponent's communications, while the rapid and unexpected blows which such a force could strike

would paralyse and perplex any commander not prepared to meet them with a like weapon.

Cavalry, however, must not abandon the *arme blanche*. Our South African experience has shown that in a *mêlée* a rifle is a poor weapon, and collision with the foe, however difficult of attainment, should always be the cavalryman's aim. The moral effect and the actual loss thereby inflicted is far greater than can be obtained in any other fashion, and opportunities will still occur in which it may be employed after the enemy has been demoralised by previous fire action. The pursuit of the retreating Turks along the road from Lovtcha to Plevna shows what is possible in such cases.[1]

It will be observed that the foregoing arguments ignore the mounted infantryman. He is at the best but a poor substitute for his brother in the cavalry. There is nothing the former can do that the latter cannot, while the mounted infantry soldier is powerless to act as a cavalryman. But to meet modern requirements, the training of the latter will have to be altered: the old notion that he cannot be trained to act on foot and on horse must die the death of all superstitions. Let it be admitted that he can, and the man properly equipped and trained for the purpose under intelligent leadership,—he will then be able to play a far and away more important part than he ever has done before in war. Deprived of the old duty of deciding battle on the actual field, a higher part is given to modern cavalry in the position it will hold in strategical combinations, while still retaining its former privilege of turning the defeat of disheartened men into a rout by its fearless action in closing with them.

The chief characteristics of the fire from modern weapons are the—

1. Absence of smoke.
2. Increased range.
3. Greater rapidity.

[1] Nothing fresh is to be learned from the cavalry on either side in Manchuria.

Infantry fire is now effective up to 1400 yards and over, and decisive at 600 yards and under. Field artillery is effective up to 4000 yards, and decisive at anything below 2000 yards. Infantry machine-guns have the same range as the rifle. Heavy batteries, formed in our service of 60 pdrs., are effective at 5000 yards, and give fairly good results at even longer ranges. The howitzers, employed for high-angle fire, can be used up to 3500 yards. The value of infantry fire at close ranges—anything under 500 yards—is enhanced by the rapidity of fire possible from the use of the magazine, and by the employment of clip-loaders—*i.e.*, an arrangement by which several cartridges can be put into the magazine in one motion. The modern rifle can thus be fired fifteen to twenty times a minute. This rapidity will be considerably augmented by the introduction of automatic loading, due to the application of recoil or to a part of the gas of explosion, to actuate the breach-action and load the rifle. Our machine-gun can fire for a short time at the rate of 600 rounds per minute, while the newest form of field-gun with fixed ammunition is capable of firing a round every four seconds. It is of course not to be assumed that these rates of fire can be kept up for long, but their value lies in the fact that at the critical moment of an action it is possible to pour an absolute hail of projectiles on the foe. This principle is as old as the introduction of projectile weapons: its effect is largely due to the moral effect of heavy losses suddenly inflicted. At Königgrätz the Austrians kept back the Prussians behind the Bistritz by its use, we suffered from the same cause in the Boer war, and now the French propose to employ it for their artillery by the so-called *rafale* system—*i.e.*, a sudden outburst of enormously rapid fire.[1] Obviously the principal part of a soldier's training, whether gunner or infantryman,

[1] *Rafale* means a white squall, and is used to typify the suddenness and devastating effect expected to be gained from this kind of fire.

should nowadays be devoted to teaching him to shoot. Far more than in the days of Napoleon "fire is everything, the rest nothing."

The enhanced value of modern fire will greatly increase the fighting power of small units. A few men with a good supply of ammunition will be able to produce effects derivable only from much larger forces with old-fashioned weapons. If even a very small number can seize a given point and cover themselves, they will be able to hold out much longer and offer a far greater resistance than was formerly possible. It does not need much reflection to see what wide-reaching effects may thus be obtained.

The rifle-calibre machine-gun represents a fire equivalent to that of about forty to fifty men compressed into a short front, and is therefore useful where great local effects are required—*e.g.*, to command some point, such as the issue from a village or wood, the passage of a bridge or some section of ground it is desired to bring under severe rifle fire. There seems little doubt that the best form to use is the tripod mounting. This takes but little space, the gun can be carried by one or two men, is more easily concealed, and therefore more difficult to put out of action, than when fixed on a wheeled carriage. The great drawback to the machine-gun is the great expenditure of ammunition.

But however great the gain may be in the fire power of guns and rifles, men are still the same, still as vulnerable, still open to the same influences on the battlefield. If it took a given number of bullets to stop the progress of an attack a hundred years ago, it takes no more now; but these can be delivered over a seven times greater range, and with a tenfold rapidity. Hence fewer men are required to hold a given position, and it is no longer necessary for a line to be continuously held. For small gaps in it, if the ground in front of them be effectively swept, are of no detriment to the defence.

We may fairly say, therefore, that—

1. Fewer men are needed to hold a position than was formerly the case;

Or conversely,

2. The line held by a given number can be much more extended.

A man to every four yards will suffice to furnish the Firing Line, its supports will require an equal number, while the Second Line should be about the same strength as the first. Thus we get a man a yard for First and Second Lines. The Third Line or General Reserve would require to be about the same strength as the First and Second Lines, so that two men per yard will suffice to hold a position.[1]

On the offensive, also, less thick lines are required for attack than formerly. Our regulations lay down that for a decisive attack "the object is to establish a firing-line of about one rifle per yard at decisive range." Less will suffice for a holding one.

Generally, then, we may assume that, with the same number of troops engaged, battle-lines will be longer, and hence more difficult to command. The tenuity of the fighting front will render it peculiarly liable to penetrating attacks, and hence great precautions must be taken to meet them, whether on the offensive or defensive—*i.e.*, the Third Lines in the order of battle must be kept stronger than has heretofore been the case.

If these premisses be correct, it follows that, in the attack especially, hostile lines of infantry will be subject more than ever to local effects. Here a portion will be held at bay, there another part will be able to push on; at a third place it will be compelled to retreat. In order words, the line of battle will waver much more than formerly, and this wavering will be more difficult to control, because the attenuated line of modern infantry fighting is much more difficult

[1] This was written before the Manchurian war. The experience gained from it confirms the suggestion.

to keep in hand than the troops of former times, who fought in closed ranks. Drill has no longer any place on the battle-field; its place is taken by battle-training—*i.e.*, the highest development of skill in the use of the rifle, and the proper use of cover. The result of this development which enhances the value of the individual will be a tendency for the line to break up into local combats. It will be much harder than formerly either to take advantage of success or repair defeat, because of the difficulty of subordinating the actions of the many to the wills of the few when they are no longer, as was the case a hundred years ago, subject to the restraining influence of contact in close formations. Still the result of battle will, as ever, depend on highly trained leadership able to direct the troops under all the varying circumstances of the fight. It will, however, be somewhat differently applied. The personal influence of the gallant subordinate will have far more effect than in the days of Wellington, when he was merely a repeater-of-orders to his battalion commander. In the present day he no longer merely indicates the road which leads to victory, but on his cultivated intelligence depends the choice of the proper path to gain the goal aimed at. To the higher leaders is given the task of watching the front line, feeding it with fresh troops, warding off counter-attacks, and guarding against the fatal results which might ensue if its retreat were not properly covered. But in the fighting front no greater command in breadth is possible than that which one man can influence under the stress of battle, and this cannot be estimated at much more than twenty to thirty yards. Battle-fighting is less mechanical, and a much higher development of the individual intelligence is needed to carry it to a successful conclusion.

Improvements in weapons have increased the value of the defensive, as it alone permits the continuous use of cover. The absence of smoke is in its favour. The defender's position is no longer betrayed by it, nor does it

serve to cover the advance of the assailant. The probability of a man being hit in the open compared with one in a sheltered trench is at least four to one—some authorities put it much higher. If the men thus sheltered can commence to hit their adversaries at three-quarters of a mile, while artillery fire is efficient up to and over two miles, plainly the assailant's task is vastly harder than of yore. For although the latter employs the same weapons, *cover*, which continuously aids the defensive, is only available for the offensive at brief intervals, and the advancing troops must in their forward movements be fully exposed to fire. Moreover, the defensive has another great advantage. It can keep its supports close up to its firing line. This the attack cannot do, as they would suffer equally with those in front, and while thus condemned to a passive part, being unable to fire, they would experience losses fully as great as those of the firing line. For it must be remembered that the ground in front of an infantry position is fairly swept by projectiles up to 700 or 800 yards when the defenders are firing at ranges anywhere between 400 to 600 yards.[1] Except, therefore, the ground be extremely favourable, it is idle to imagine that closed troops can be led in support of the firing line for any lengthened period. The experience of 1866 and 1870 will be repeated over again,—those in the second line will go on to the first line or go back: they will not continue to advance under fire without making an effort to get at the foe, and if unable to do so will retreat. The supports must necessarily go forward without replying to a fire which it is not too much to describe as devastating, if they are close to the firing line, while if far enough back to be fairly safe from it—say 400 yards—they are plainly of little use as supports. Unless the fire of the defenders be diminished and is less powerful than that of the assailants, how can the latter expect to succeed against them? The former have the advantage of cover. They will seek for a straight

[1] The introduction of the pointed bullet enables the whole ground to be swept up to at least 700 yards.

position possessing a clear field of fire to the front, with no pronounced salients, and with secure flanks. If fairly well placed, they can put as many rifles in the front line as their opponents, while their supports will be close up to it (within ten yards) in deep shelter trenches. Under such conditions the advantages possessed by the defensive are obvious.

Henceforth a frontal attack may be eliminated from serious consideration against well-placed and well-covered troops. It is only practicable when the nature of the ground in front of the position to be assaulted is such that the assailants can approach it under cover. For advances cannot be carried out by long rushes of large portions of the firing line over open ground, exposed to a fire of redoubled severity, such as would be delivered by the defenders while they were not being fired at by the advancing troops, but must be conducted by short forward movements of individuals or small parties crawling along the ground from cover to cover. The supporting lines, for there will be more than one, will move in a similar manner, and as the firing line gets weaker, and is in danger of being brought to a standstill by its losses, individuals or small parties will be moved up into it from the foremost of them. This involves country of a somewhat cut-up nature, which is the very kind the defence will avoid when feasible. Plainly then it will, as a rule, be impossible to push home a frontal attack over open ground, or if this be necessary, such an advance must be conducted in stages from trenches made by the assailants, following the Japanese example. Otherwise it must be restricted to a containing character only.

There is no good to be derived from over-extension in our infantry attack. Troops can only be driven from a position by superior fire. This can only be got by a larger number of rifles than the defence are using, therefore to succeed frontally the attacking line *must* be stronger than the defender's—*i.e.*, *must* have more men in it. How is this possible if we keep them at wide intervals? Decision

can then only be arrived at by a flank attack—*i.e.*, one which, delivered against the flank of a line, enables the assailant to subject the latter to enfilade fire.

Now the same elements which make frontal attack so difficult—viz., long range and rapidity of fire—increase the effect to be derived from assaulting the enemy in flank. For his front line will be subject to terrible losses from the enfilade fire poured on it and sweeping along the deep target it offers as soon as the flank attack is able to get within range. Shrapnel-shells with a danger zone of 300 yards, and effective up to a range of at least 4000 yards, coupled with rapid rifle-fire from a range of 1400 yards, confer a power on the flank attack undreamt of in the days of smooth-bores.

The assailant bent on turning the defender out of the position he has chosen will then hold him in front and develop his attack against his opponent's flanks. To attempt to push home a frontal attack against the defenders of a strong position unless their *moral* has been thoroughly shaken will be impossible, except by the system of advancing stage by stage from cover thrown up. The only other way in which it may be done will be by concentrating a very severe fire of artillery against the selected point. The shrapnel bullets may not hit a large number of men in the trenches, but they will certainly keep down their fire, although they have little penetrative power, and do not pierce any fairly strong cover. High-explosive shells have such a small radius of effect (about 25 yards) that unless they actually drop in a trench but little result is got from them. No doubt in European warfare, where woods and villages are met with, they will soon render them untenable. That, however, merely means that these localities will be avoided by troops whether on the offensive or defensive. But against earth cover they will never produce much damage except when a concentrated fire is brought to bear on it from a large number of guns

firing at them, and even then there will be more frightening than killing; but the moral effect should aid the infantry advance.

It is idle to talk of the advantages or disadvantages of dispersion *versus* concentration of artillery. On the future battlefields of Europe guns *must* be concentrated because of the numbers armies now take with them. But they will be concentrated in a very different manner to the old method of long visible artillery lines. For the universal use of indirect fire, coupled with the greatly increased ranges of modern weapons, has given to the gunner the dispersed order so long used by his brother in the infantry. Guns may now be placed anywhere, hidden in hollows, placed behind plantations or villages—in short, in any positions in which they cannot be seen by the enemy, but from which, by indirect fire, they can concentrate their efforts against his line. Hence it will often be possible to leave the actual line of battle entirely to the infantry, or at any rate but a small part of the front need be occupied by guns. Even in such cases it is quite easy with smokeless powder to place a gun so that it does not betray itself by its flash, while with quick-firing field-weapons the rapidity of fire is so great that a single gun, which cannot be located, will often produce great effect. It was frequently the case during the South African war that a single Boer pom-pom carefully concealed was able to cope with a considerable number of field-guns in the open. It is quite conceivable that a section of quick-firers the position of which cannot be identified by the enemy will produce a far greater effect than a whole battery which is plainly visible.

On the offensive and defensive, therefore, every effort will be made to place guns so that they can fire over the heads of the infantry holding the front line.

With regard to the attack. It is important that the artillery should support the infantry from the commencement of the movement until the very last moment pos-

sible, even at the risk of a few casualties among the latter. For the continuous stream of shrapnel-bullets will keep down the enemy's fire and diminish its accuracy. It seems undesirable, therefore, to change the position of the guns when once they have got the range, unless for some very special circumstance, as better results will then be obtained. Moreover, the nearer they are to the enemy the sooner will they have to cease fire to avoid the risk of hitting their own infantry.[1] After success they should, of course, be pushed forward to pursue, and then they may occupy any position from which they can bring fire to bear on the retreating foe.

To supplement the field-guns against the points in the enemy's line which the general means to capture or break through, the howitzer batteries and heavy guns will be employed, and this seems to be the most probable part for these more powerful weapons to play. They must necessarily be slow in their movements, and can therefore hardly be given a very forward place in the columns, so that they will not be available at the commencement of the action. They will, in fact, be a species of second-line artillery for use against special points to intensify the effect of the ordinary field-guns, while the much longer range of position guns (not of the howitzers) will give them a far wider choice of ground on which to come into action.

We have seen that, so far as the infantry are concerned, the advantage lies with the defensive. On the other hand, it must be admitted that the assailant possesses one advantage—viz., that he knows what he means to do. He can, therefore, concentrate his artillery more easily than the defender, who is unable to tell till the battle is developed

[1] This is due to the flat trajectory of modern guns. It is unsafe, unless the artillery occupies much higher ground, for it to fire over infantry except the latter is 600 yards in front of it and the range 1500 yards, and it is risky to do so when its own infantry is within 600 yards of the target. The Germans lay down that gun-fire can be kept up until the attacking infantry is within 330 yards of the target.

where the attack will be pressed home. Hence he must at first disperse his guns more than his opponent.

But, on the whole, there can be no doubt that the defensive has gained relatively compared with the attack under the modern conditions of war. The moral advantages of the initiative still, of course, lie largely with the offensive, but a skilfully conducted defensive seems to offer opportunities for effects which can scarcely be obtained from a blind offensive. No doubt the man who "goes" for another derives from his vigorous action some advantages; a passive defence can never gain victory, any more than a prize-fighter can win a fight by merely warding off the blows of his opponent. But it is not an uncommon thing for a fencer to allow an adversary to weaken himself by vigorous attack and to assume the offensive against him when he is tired out by his exertions.

It is undeniable that two great masters of war—Clausewitz and Moltke—have both taught that the offensive-defensive is the strongest form. Moltke says:—

"According to my opinion, owing to the improvement in firearms the tactical defensive has gained a great advantage over the tactical offensive. We were always offensive! . . . in 1870, . . . but at what sacrifices! It appears to me more favourable if the offensive is only assumed after repulsing several attacks of the enemy."

The fact that the defender is in the stronger position will have a double effect. In the first place, as he cannot as a rule attack frontally, the assailant will more than ever use flank attacks. If these are to be successful they must be wide. This involves even greater numerical superiority for the offensive than has hitherto been thought necessary, as so much more ground has to be covered. Had Nogi had twice the number of men he had, his flank attack at Mukden would have been far more efficacious. Truer than ever is the maxim of Moltke, inherited from Napoleon, "It is impossible to be too strong on the day of battle." Strength, however, will lie

not merely in numbers, but in being sure that the tactical blow is not liable to interruption while being struck. This will involve a far spread-out screen to ensure the safety of the flank attack from a hostile counter-movement.

In the second place, advantage will be taken of darkness to draw as near as possible to the position to be attacked so as to rob the defensive of the advantage it obtains from long-range weapons. This will very often cause battles of two or more days' duration. On the first the attack will be more or less tentative, devoted to winning a position where the troops can be intrenched, which will serve as the base for a further advance the next day. The first phase will be a *battle of reconnaissance*, which will enable the assailant to judge where he should eventually push home. To use the words of Napoleon, "*On s'engage partout et on voit.*" The days of accurate reconnaissance of positions by individuals or by drawing fire are gone. The former cannot get near enough to see without being shot; the latter gives no smoke, and therefore indicates nothing. The dirigible balloon will probably be able to ascertain broadly how the enemy is posted; but it is beyond the scope of this brief sketch to consider the effect of aerial operations on the conduct of war.

On the second day the *battle of decision* will begin. The flank attacks, if successful, will disconcert the defenders, even if they do not immediately affect the main line held. As their effect increases, the frontal attack, which has hitherto been of a containing character, will be pushed more home. Probably an attempt will finally be made to penetrate at some point near a wing, in conjunction with the flank attack in that direction, so that a portion of the enemy may be cut off and crushed.[1] The ability to concentrate fire from many divergent points will enable the assailant literally to pour

[1] These suggestions, written before the Manchurian war, have been amply confirmed by it.

down a hail of projectiles on the portion of the enemy's line thus selected for isolation which must produce a great effect.

It would be a great mistake, however, to assume that because the battles in Manchuria were so prolonged, that therefore in Europe we shall habitually see them occupy the time taken at Liao-yang, eleven days; Mukden, fourteen days; or as at the Sha Ho and Hei-kou-tai, six days. They will undoubtedly be, for reasons given above, longer as a general rule, but their duration will depend in the first instance to a considerable extent upon whether the strategical situation requires the immediate gain of a tactical success or whether time is of no object. If the armies operating on the theatre of war are completely massed and facing one another, then there will be no object in pressing the speed of fighting unless to prevent the defender fortifying himself, because the result of victory to the assailant, from the tactical point of view, would be independent of strategical considerations, and time is required for the proper development of his flank attack. But if immediate success is necessary to prevent divided forces of the enemy combining against the attacking army, then the battle must be fought quickly and decision come to to prevent such action. For instance, in 1814 Napoleon, with far inferior forces, had to deal with large masses of the Allies. He could not dally with Schwartzenberg with Blucher on his flank, or *vice versâ*, for fear that his two opponents should combine and crush him. On the other hand, in Manchuria, where both sides were reciprocally situated, the strategical situation did not call for any great tactical rapidity.

It is perfectly plain that owing to the difficulty of pressing home an attack under modern conditions of fighting, due to the increase in range and greater efficiency of weapons, there must be a general tendency to take longer over the tactical struggle. Hence strategical combinations which require time will be rendered somewhat easier than was

formerly the case, while the danger of acting on interior lines, already pointed out, is considerably enhanced. Could Blucher have held out at Ligny, Napoleon would have been crushed the next day, for Wellington would have beaten Ney and Bülow would have helped Blucher. In the latter instance time was the essence of the action. In Manchuria it was not necessary to the strategy of the situation to gain an early tactical success, while to have hurried the fighting would have been too costly. It must never be forgotten, however, that the greater the time given to the defender, the stronger he will make his works. The slowness of the Japanese advance gave the Russians long periods which they took advantage of to render their chosen positions very strong. In European warfare, on the other hand, battles will constantly take place at very short notice, and the side on the defensive will not then have the opportunity of constructing elaborate works.

One reason for the length of Manchurian battles was the fact that they were so purely frontal—*i.e.*, no really large force was detached for outflanking purposes. Probably this was in some measure due to the length of the battle lines and relative smallness of numbers available to hold them. Such positions as Mukden may be strong, but the fact that they are held comparatively weakly prevents the troops actually holding the line being moved, as that would lead to the denudation of points where the enemy might break in. In attacking such positions it would be better to limit the attack along the line generally to a strictly holding fight, but watching for a favourable opportunity to break in when the flank attack, for which the main strength would be employed, is developed. Because this was not done by Oyama it would be ridiculous to suppose it would not be done in Europe, while it is scarcely possible to believe that any other European nation would sit down without making a serious counter-attack as the Russians did. European battle lines will probably have a shorter fighting front,

and therefore be more easily turned; large reserves will be massed on the flanks, whether for outflanking on the attacking side or to meet this movement on the defensive side; while both alike to avoid the results, to be obtained under modern conditions from penetration, will endeavour to form from the outset a second intrenched position behind the first—*i.e.*, either the main attacking or main defensive line.

With very long lines of battle defeat on one wing will not necessarily cause the immediate retreat of the whole force. This will depend entirely on whether fresh dispositions can be made to meet the situation. With the extensive fronts now held, the effect of such a blow is more relatively local—*i.e.*, does not produce so much moral effect on the rest of the line than is the case with a shorter battle front. Still, the new formations must be carried out under the stress of combat, and the losses troops suffer from rapid-firing weapons when retreating in disorder are so great that it will be difficult to halt them when once they have begun to fall back, and any marked success will lead as before to those *within the range of influence* retreating. Then will come the chance of the attacking side to wedge in troops at the point where the break has taken place and ensure the victory.

Such will be the course of a modern battle in which the assailant wins. When he loses he will suffer the fate which overtakes every force of any density which falls back before the enemy. Flushed with success, the victorious side will pour in its fire with redoubled energy, to which the flying foe while in motion is practically unable to reply. A retreat caused by a sudden falling away of troops tried beyond their powers of endurance will lead to their annihilation.

Here, again, we have little to learn from South Africa or Manchuria, the conditions of the struggle being entirely different from what would obtain in Europe. The Boers

never stood; the Japanese dispositions did not enable them to win any crushing victory. Once during the South African war was there an opportunity, unfortunately thrown away by sheer stupidity, of inflicting great loss by a vigorous fire pursuit—viz., after Talana. Speculation as to what might have been the result of a decisive victory obtained at the outset of the struggle accompanied by great loss inflicted on the foe is idle, but it is difficult not to believe it would have been great. In the next European war in which pitched battles will be fought, it is sure that many such occasions will occur, and if taken proper advantage of will make the consequences of defeat very severe.

The certainty that high training will be necessary in future war points to progress in organisation taking a somewhat different path to what has hitherto been the case. Up to the present time every nation has been striving to put the largest number of men possible in the field. Is it not probable that the huge armies of to-day, which cannot be trained to a very high pitch, might be vulnerable to the attack of somewhat smaller forces brought to a more elevated standard of military training? The huge modern army is very dependent on its communications. These are always open to attack by a force of great mobility able to move long distances without much impedimenta. Five thousand men on horses and bicycles, with food and ammunition carried on automobiles, able to do thirty or forty miles a-day, could carry destruction into the rear of an army and paralyse its movements; while its power of resistance with modern weapons is so great that it could fairly hope, with its mobility, to make good its retreat. The raids which Stuart carried out in 1862 will be repeated in the next war on a larger scale and in a more highly organised manner, and the nation which first thoroughly appreciates the value of mobility, and organises its army accordingly, will go far along the road which leads to victory.

The communications of an army by railroad are vital to the large modern army, and are easily destroyed. A general commanding in the field must therefore, in future, devote a far larger portion of his troops to guarding his communications than was formerly the case. This forms an additional argument in support of the smaller but more highly trained force of great mobility, which would be much more independent of supplies brought up from the immediate base, and which would permit of far more brilliant strategical combinations than is possible to a larger and slower moving force.

Success in modern war means incessant training in its operations. The first object of the soldier's education is to teach him to shoot, the next to use his defensive weapon, the spade. The main and most important factor in organisation is mobility. The war training of the leaders should be devoted to develop to the highest extent, by a thorough study of the principles of modern war, the power of the instrument placed under their command and guidance.

It is generally stated that war is less deadly than formerly was the case, and on the whole this is true. But this is in large measure due to the care which is now bestowed on the sick and wounded, to hygiene and surgery. The Japanese have taught us how enormously the losses in war, due to disease, may be diminished by attention to proper sanitation and prophylaxis.[1] In battles where the fight is close the losses will be very great; at other points where it is of a tentative character they will be less than was the case in bygone days, when both sides were almost at handy-strokes along the whole line. Now it is just these points of intense loss which really decide the result. For, as has been well said, it is the men who run away, not those who are killed, who determine the issue of the struggle. But the running

[1] A striking example of the value of these precautions may be seen by contrasting the losses from disease in the Ashanti expedition of 1873 with the last one.

away is caused by the effect of the enemy's fire, and where that is, as must often be the case, almost annihilating, the moral effect on the survivors will be very great and will greatly affect their fighting capacity.

If the foregoing reasoning be correct it is plain that—

1. Modern battles will often be of long duration.[1]
2. They will be far-reaching in their results.

It follows that no general will willingly expose his strategical combinations to the arbitrament of battle without taking very good care to be as strong as possible, and this will tend to make strategy cautious, and lead to keeping troops concentrated. This will in its turn involve the most careful organisation for bringing up supplies. Communications will therefore be of far more value than heretofore, and this fact will give rise to many attempts to cut them. They *must* take the form of railways, which alone can carry what is required in sufficient amount, and these are easily rendered useless by even a few men with high explosives. Hence the engineer arm will become of increased value, for it will form an indispensable portion of the mobile force of horsemen and cyclists which will play so great a part in the future, and will also be largely employed in making defensive works and restoring the various structures, bridges, viaducts, &c., destroyed by the enemy. The Japanese have three companies of sappers to a division, most European armies only one.

The fact that a railway is so easily injured will also tend to a new development. The automobile and the traction-engine will be largely used for bringing up supplies to take the place of railways and to shorten the long horse-drawn supply columns. Anything which tends to lessen the loss in horse-flesh quickens war, for the want of mobility which

[1] Another reason why this will be the case is the time required to concentrate large numbers, which will often leave very little daylight available for fighting on the first day.

ensues from it hinders progress. To drag ammunition and supply waggons, and even heavy guns, along roads may well be intrusted to traction-engines, even if horse-teams are kept for use with some of the vehicles; while self-moving waggons can proceed so rapidly and for such distances that they are marked out for use with mobile troops, such as the cavalry force suggested in this chapter.

To sum up. Strategy is more affected now by tactics than formerly, because of the tremendous results which may result from winning or losing a battle. More than ever is it the case that a few well-fought encounters may decide the result of a campaign. The greater reason, then, to highly train our army and to study war. The ever-growing power of fire can only tend to increase the fighting value of a race which, whether on land or sea, has owed its victories largely to its superior marksmanship.

PART II.

CAMPAIGNS WHICH ILLUSTRATE THE PRINCIPLES EXPLAINED IN THE PRECEDING PAGES

CAMPAIGN OF 1796.

(See Map No. 2.)

The special points illustrated by this campaign are—

1. The evil arising from dispersion of forces, the line held by the Allies being much too great for their strength.

2. The use of a mountain-range as a screen.

3. The value of the possession of the passes—*i.e.*, debouches over the mountains.

4. That allied forces acting from different bases with diverging lines of communication should subordinate their movements to the common object, the annihilation of the enemy's field army.

5. The desirability of changing a line of communications when a better becomes available.

6. The advantages derived from Strategical Penetration and from the use of Interior Lines.

7. The weakness of a navy without an army for offensive purposes. The English fleet commanded the Mediterranean coast, but no army being available, Napoleon's line of communications, which led back to France from his left flank, was never in any danger.

The position at the commencement of the campaign was as follows: Napoleon with 37,000 men held the mountain-chain of the Maritime Alps and Apennines from the Col

di Tenda to Savona, with a brigade pushed forward to Voltri demonstrating towards Genoa to attract the attention of the Allies in that direction. Of the latter the Austrians, numbering 35,000 and commanded by Beaulieu, occupied a position from Sassello to Voltaggio, while the Sardinians under Colli extended from Coni to Millesimo, and were 25,000 strong. The French held the passes of Tenda, Ormea completely, and the summit of the Savona Pass. The Sardinian fortifications of Coni, Mondovi, and Ceva, however, closed the principal valleys leading to these points. The Austrians held the Bochetta Pass.

The Immediate Base of the Sardinians was Turin, of the Austrians the Mincio, and of the French Nice.

This campaign is one of the few of which we know the conqueror's General Idea in some detail. Napoleon's intention from the first was to penetrate between the two allied armies, act against them alternately, and drive them back on their respective bases. He assumed, and rightly, that while the Sardinians would be eager to defend their own territory, the Austrians would not forget that their chief concern was Lombardy and their communications back to the Mincio, which ran back by the roads through Milan, Pavia, and Piacenza. He laid down his views in a letter to the Directory written on the 19th January:—

"The operation to be undertaken is simple. Are the Piedmontese alone? March upon them by Garessio, Bagnasco, La Scolta, Castelnuovo, and Montezemolo. Having beaten them and forced the intrenched camp, lay siege to Ceva.

"Have the Austrians the good sense to unite at Montezemolo with the Piedmontese? Separate them by marching upon Alessandria; and as soon as this separation is effected give twenty-four hours to the seizure of the intrenched camp at Ceva."

Thus his General Idea was to penetrate between the two

allied armies. To aid his plan he drew the attention of the Austrian commander towards the Bochetta Pass by a demonstration of the brigade at Voltri.

The line occupied by the Allies, about eighty miles long, was too extended for their strength and was deficient in lateral communications, as must always be the case in such country, owing to the projecting spurs of the mountains. It was especially weak in the centre, opposite Savona, where there was a gap between the Sardinian and Austrian armies.

Through this point Napoleon determined to advance and penetrate between the allied forces. His demonstration from Voltri deceived Beaulieu, who thought he meant to advance through the Bochetta Pass. The Austrian commander resolved to meet this movement by a counter-advance with his left wing along the Mediterranean littoral, while his centre, crossing at Savona, would cut off the troops of his adversary east of this point. But his attempt failed; his centre was completely defeated by the French advance through Savona and compelled to fall back on Dego in disorder, while demonstrations from Ormea and Garessio held the attention of the Sardinians. Beaulieu finding his opponent falling back before him, for the troops on Napoleon's right were no longer wanted for demonstration purposes, and learning of the defeat of his centre, endeavoured to concentrate his forces first at Dego, and, when they were driven thence, at Acqui.

Napoleon now turned his attention to the Sardinians. Leaving a division at San Benedetto and a brigade at Cairo to watch and hold the Austrians and prevent them attacking his communications with Savona, he defeated and pushed back Colli on Fossano and Carignano. The Sardinians then made peace, and the Austrians, who had been advancing from Acqui by Nizza towards Alba, fell back over the Po at Valenza.

Comments.

Beaulieu unwittingly played into Napoleon's hands by attempting an advance through the Bochetta, as his weakened centre was defeated by the French forward movement, and he was unable to concentrate his force, moving in long exterior lines, before his adversary, operating by far shorter interior lines, had defeated the troops opposed to him. The mountains served as a screen to the French and prevented the Austrians obtaining proper information as to their movements. The British fleet completely dominated the Mediterranean littoral, but could not interfere with Napoleon's line of communications, exposed as it was, because no army was available to back it. This clearly shows the limited influence of the navy on land operations.[1]

The want of co-operation between the Austrians and Sardinians contrasts clearly with the conduct of Blucher with regard to Wellington in the campaign of 1815. No advance through the Bochetta Pass could endanger Beaulieu's connection with his base, because he would always have been on Napoleon's flank had the latter attempted it even with his whole force, and the Austrians could, at any rate for a time, have depended on supplies from their ally. Whereas the contracted country between the sea-shore and the Alps, along which the French line ran, was much exposed to attack, and could easily have been cut by an advance of even a portion of the allied forces over the Alps. Hence Beaulieu ought not to have been deceived by the feigned advance of Bonaparte from Voltri. For his best reply to it was to throw forward his right and cut the French communications with part of his forces, while with the bulk he would have acted on the flank of any advance through the Bochetta. Such

[1] The bombardment of Alexandria is another instance. Had an army been available Arabi's revolt might have been at once quelled

a movement of his enemy as he supposed would have been fatal for the latter, and was not therefore probable.

Twice during the operations did the French change their line of communications — once when it was moved from Savona to Ormea, and secondly, when the capitulation of the Sardinians opened the road over Monte Susa to them, which was perpendicular to the direction of their advance against the Ticino or Mincio. On each occasion the reason was the same — viz., to secure a better and shorter road. With regard to the first, it may be remarked that it would not have been worth while to do it had Napoleon's force been a large one, because it is never well to take up a new line of communications unless considerable advantage is to be gained from it. But in the second case great benefit at once ensued, as a much more direct road to the centre of France was thus made available. It is a similar case to that of Wellington changing in 1813 from Portugal to Northern Spain. For the same reason in 1800 the line over Monte Susa was opened as soon as possible to give Napoleon free access to his Ultimate Base, France, which was only precariously kept up over the St Bernard.

CAMPAIGN OF 1805.

(See Map No. 3.)

The special points illustrated by this campaign are—

1. The bad General Idea of the Austrians, who miscalculated the direction of Napoleon's main attack, which they thought would be in Northern Italy but which was actually delivered against their force on the Danube.

2. The long time required for Strategical Deployment before the invention of railways, which prevented the Russians from coming up in time to support Mack.

3. The advantage Napoleon derived from the shape of his Base of Operations, the Main and Rhine, which being a re-entrant enabled him, while covering his own communications, to at once threaten those of the Austrians.

4. The use of cavalry to screen the French advance and to deceive the Austrians as to the direction of their attack.

5. The great preponderance of force needed to surround an adversary, and, in the days of short-range weapons, the difficulty of preventing a portion of the encircled troops from escaping, shown by the fact that the Archduke Ferdinand was able to do so.[1]

6. The danger of acting on both sides of an obstacle, exemplified by the danger Ney ran at one period of the operations.

The French Grand Army numbered some 205,000 men, the Austrian force, nominally under the Archduke Ferdinand, his Chief of the Staff, Mack, being the real commander, was about 84,000 strong. The Austrians expected the main attack of the French through Italy as in 1796-7. They

[1] Contrast this instance with Sedan 1870. Here the French were completely unable to break the German ring drawn around them.

were misled by the concentration of troops which had taken place for the Emperor's coronation as King of Italy at Milan, and directed the greater portion of their troops, some 130,000 men, under the Archduke Charles, to this part of the theatre of war. Here, however, the French had only 50,000 men, under Massena; for Napoleon felt certain that if he could defeat Mack before the Russians could come up to aid him, his opponents would be compelled to retire from Italy. Thus the General Idea of the Austrians involved the offensive in Italy, the defensive on the Danube, until their allies the Russians came up.[1] Napoleon's plan of campaign was the exact reverse, and was the more judicious because if Mack were crushed the Russians would fall back until they were reinforced, and no successes in remote Northern Italy would compensate the Austrians for the results Napoleon would gain in the heart of their country by a successful advance on Vienna. There was also a force of 30,000 regular troops and sixty-four battalions of militia holding the Tyrol under the Archduke John.

The organisation of the French army was as under:—

Guard Corps,	Bessières	6,000
1st "	Bernadotte	18,000
2nd "	Marmont	21,000
3rd "	Davout	27,000
4th "	Soult	41,000
5th "	Lannes	18,000
6th "	Ney	24,000
Cavalry "	Murat	22,000
		177,000
In addition there was a corps of Bavarians and other Germans		28,000
		205,000
The exact composition of the Austrians under Mack cannot be given. Their strength at the outset was about		84,000

The Immediate Base of the French was the Main and Rhine; that of the Austrians may be assumed to be Bohemia

[1] A body of 55,000 Russians under Kutusov was expected to reach the Inn about the 20th October.

north of the Danube, or Vienna south of that river, but the latter was the one on which they mainly relied. Their most advanced magazine was at Memmingen.

Early in September Mack entered Bavaria, the Bavarians falling back to Bamberg. About the 22nd of the month the Austrians were on the Iller, which it was intended to hold. At this time the French were on the Rhine. Knowing roughly the forces opposed to him, Napoleon thought it probable that as his movement developed and his numbers became evident his opponent would fall back. His object, therefore, was a twofold one. He wished to divert the attention from his real-attack and make the Austrians believe the principal blow would be delivered against their left, whereas the outflanking movement would in reality be directed outside their right so as to cut their line of retreat. He hoped thus to be able to crush Mack before the Russians could help him. Murat with the cavalry was therefore to cover the advance, moving through the defiles of the Black Forest along a line extending from Strassburg to Neu Breisach through Freudenstadt-Freiburg, while Lannes at Stuttgardt covered the right flank of the advancing columns. Of these Bernadotte and Marmont, who came from Hanover and Utrecht, were to unite at Wurzburg and move down from the Main. The remainder moved from the Rhine between Mannheim and Strassburg in such a direction as to avoid the difficult country of the Black Forest. The somewhat different direction given to the cavalry covering the movement was meant to make the enemy believe that a fairly direct attack was intended.

The French forces struck the Danube about the 7th October, the Right Wing (the Guards, Soult, Lannes, Ney, and the bulk of the cavalry) at Donauwörth, the Centre (Marmont, Davout) at Neuburg, the Left (Bernadotte and the Bavarians) at Ingolstadt. At this time the Austrians were in position, left on Ulm, right on Rain. Murat passed

the Danube at Donauwörth, supported by Soult, who had seized the bridge there and moved on Rain, forcing the Austrians back on Aichach. Soult was followed by the rest of the French Right Wing except Ney, who was left on the left bank of the Danube and marched to Dillingen. Murat and Lannes moved up the right bank and defeated the Austrians at Wertingen. Their right at Aichach fell back to the Isar, and thus when Soult took Augsburg, while Bernadotte and Davout occupied Munich, Mack's southern line of communications was completely cut and the bulk of the French forces were between the Austrians and the Russians, the latter being at Linz, 180 miles distant.

Napoleon now turned his attention to closing all avenues of escape for Mack's force. Finding the Russians were too far off to affect the situation, he left only two corps (Davout and Bernadotte) to ward off any attack by them, while with the bulk of his forces he proceeded to push back the Austrians on Ulm and surround them.[1] Ney was ordered to block the issues to the north from Ulm and secure the bridges over the Danube below the town. Soult was despatched to Memmingen, to stop any Austrian advance from the Tyrol. Lannes and Ney were placed under Murat, so that Ney could be supported by the former and by the bulk of the cavalry, and thus have sufficient force to prevent Mack escaping to the north into Bohemia. But Murat misunderstood his instructions, and ordered Ney to bring his troops to the right bank, to which he accordingly sent two of his three divisions.

On the 11th Ney's remaining division was defeated when moving from Albeck on Ulm, and compelled to retreat to the former place. There was thus only a small force to oppose any northward movement of Mack.

On the 13th Soult was sent to Achstetten, thus still barring the Tyrol road but drawing nearer Ulm, and Napoleon, hearing of Murat's mistake, at once ordered Ney

[1] He had originally intended to use Marmont with Davout and Bernadotte.

back to the left bank of the Danube, and sent Lannes to support him, and brought up Marmont towards the river to take Lannes' place. Ulm south of the Danube was only to be watched, the main attack being delivered on the north of the river. For the Emperor appreciated the possibilities open to the Austrians in that quarter. Mack had some indistinct notion of escaping towards Heidenheim, but instead of throwing his whole force against Ney, clung to Ulm with half his army, sending only the remainder towards Heidenheim.

Ney drove the Austrians at Elchingen back on Ulm on the 14th, and the remainder of the French approached nearer that city.

On the 15th Lannes and Murat crossed at Elchingen, and the circle was completed round Ulm. The Austrian corps which had been engaged with Ney's force on the previous day was attacked by Dupont's Division (Ney's corps) and Murat's cavalry on the 16th and half destroyed, only a small portion of the cavalry with the Archduke Ferdinand escaping. Mack surrendered on the 20th.

Comments.

From the first Napoleon's line of operations, directed against and outside the Austrian right, threatened absolutely Mack's line of retreat with Bohemia, while as soon as he was across the Danube he could cut the alternative line back by Munich to Vienna. The line of the French advance was sufficiently distant from the known position of the Austrians as to render it highly probable that the river could be crossed without much risk of interruption, but sufficiently close to render the evasion of the movement by a flank march difficult—thus fulfilling the principle laid down at p. 89. Mack was altogether too inferior in numbers to deal tactically with the French in open battle. But he made the situation worse

by aimless movements and constantly exposing his troops to defeat in detail. His one chance was to break out to the north across Napoleon's communications, a movement which the possession of the bridges at Elchingen and Ulm greatly facilitated. This, as we have seen (p. 90), is the most effective movement for a general in his situation, and one which in this case was facilitated by Murat's mistake in bringing part of Ney's corps to the right bank. The danger run by Ney's corps shows that even with great superiority there is always risk in trying to surround an enemy, especially when, as in this instance, the operation is complicated by having to act on both sides of a considerable obstacle, like the Danube.

This danger is further illustrated in the subsequent advance of Napoleon on Vienna. After the capitulation of Ulm he marched by the valley of the Danube on the right bank, using the river to bring up his supplies. Expecting the advance of the Russians to aid the Austrians, he felt it necessary to be able to advance from the left bank against their communications through Bohemia. For this purpose he marched about 10,000 men under Mortier along the northern bank of the river, and collected 400 boats, which moved down stream abreast of the army, and were intended to transfer at will troops from one side to the other, while those moving on the right bank would have the advantage of the better road, and the safety afforded by the river as an obstacle guarding their left flank. The attempt to march on both sides of such a formidable obstacle as the Danube met with total defeat, for Mortier was overwhelmed by the Russians in the defile of Dürrenstein. A similar disaster overtook Vandamme in 1813 when directed to intercept the retreat of the Allies after their defeat at Dresden. In both cases the isolated force employed was too small, and was crushed by the superior strength of the enemy against which it was acting.

CAMPAIGN OF 1806.

(See Map No. 3.)

The special points illustrated by this campaign are—

1. The advantage derived by Napoleon from the direction of his Line of Operations, which from the first threatened the Line of Communications of the Saxons with Dresden, and compelled the Prussians to form front to a flank to resist his advance.

2. While the French thus threatened the German communications their own were safe, as they went back from Bamberg to Strasburg in an oblique direction. Thus any attempt of the Prussians to move against them round the north end of the Thuringian Forest would have a much longer distance to go than Napoleon would have from the south against theirs. Thus distance and direction rendered his Line of Communications safe.

3. The formation in which Napoleon moved is worthy of note. He himself has described it as a battalion square. His reason for acting thus was that he knew very little about the position of his opponents, and wished to be able to meet an attack in any direction.

4. The great danger run by an army which forms to a flank for battle close to its Line of Communications.

Napoleon concentrated his forces for the invasion of Prussia about Baireuth, Bamberg, Wurzburg, and Nuremberg. His design was to move by the southern extremity of the

Thuringian Forest upon Gera, with a view to cutting off the retreat of the Saxons, at the same time compelling the Prussians to form to a flank.

The German forces were assembled about Erfurt, Jena, Gotha. It would have been better for them to have occupied the Elbe, the natural line of resistance against a French invasion, and there to have awaited the Russians, as they were numerically inferior to the French. This, however, would have involved abandoning Saxony and Hesse-Cassel, and would probably have led to the defection of these powers from the Prussian cause.

The leaders were unable to agree as to any definite plan. Brunswick wanted to move from Jena and Erfurt to Hildburghausen and Meiningen, and thence across the Emperor's communications, which he judged went back to Mainz, threatening Fulda, with his extreme right, while Hohenlohe was to advance by Saalfeld, pushing the French before him. The latter wished to move the whole force direct to its front in two portions by Saalfeld and the defiles of the Thuringian Forest. Brunswick's plan was accepted, but as the operations were about to commence he heard that the French were assembling on Coburg. Comprehending that this rendered the proposed movements impossible, he ordered a concentration of the whole force behind the Saale.

The distribution of the French Army was as under at the commencement of the campaign :—

Guard	Corps,	Bessières	at	Wurzburg . .	20,000
1st	"	Bernadotte	"	Lichtenfels . .	20,000
3rd	"	Davout	"	Bamberg . .	27,000
4th	"	Soult	"	Amberg and Bamberg	32,000
5th	"	Lannes	"	Schweinfurt . .	22,000
6th	"	Ney	"	Nurnberg . .	20,000
7th	"	Augereau	"	Wurzburg . .	17,000
Cavalry	"	Murat		——— . .	32,000
					190,000

The Germans were posted as follows:—

Brunswick at Erfurt, with an advance-guard under the Duke of Weimar	76,000
Rüchel at Gotha	17,000
Hohenlohe with the Saxons and some Prussians, and an advance-guard under Tauentzien, at Jena	50,000
The Reserve under Wurtemburg was at Magdeburg	15,000
	158,000

The French communications ran back from the Main to Strassburg, the Rhine being the Immediate Base; that of the Prussians was the Elbe from Magdeburg to Torgau, of the Saxons, Dresden.

The French plan was to move the Right (Soult and Ney) by Baireuth to Hof; the Centre (Bernadotte, Davout, Guard, and Cavalry Reserve) on Saalberg; the Left (Lannes and Augereau), after a feint on the Gotha road, by Coburg on Saalfeld.

The advance commenced on the 8th October, the cavalry, under Murat, moving on Lobenstein, and covering the front. Nothing was seen on the right, but on the left Tauentzien was observed. Soult, followed by Ney, reached Plauen; Lannes, Saalfeld, followed by Augereau. The centre moved by Saalberg on Schleiz.

While the advanced detachments of the Prussians fell back across the Saale on Schleiz, Tauentzien was driven back by Murat, the Saxon cavalry retiring on Gera.

Now Napoleon in all likelihood had from his spies a fair knowledge as to what the Prussian plans had been, and when the Saxon cavalry therefore fell back on Gera, he probably assumed that Hohenlohe would follow it from Jena, especially as he knew troops were at Roda.

He also thought Brunswick was moving on Fulda, in which case he could not easily counter-march to join his left wing on the Saale, and only Hohenlohe would have to

be dealt with. He therefore ordered a concentration towards Gera. If the enemy then fell back on Dresden, Soult, who led the right, could move on that point. Hence he wheeled to his left to throw himself on Hohenlohe.

Lannes drove the Prussian advance-guard from Saalfeld to Jena and moved on Neustadt; Augereau on his left, Soult on Gera, and Ney on Auma, thus concentrating the bulk of the army between the Elster and the Saale. On the 12th Lannes seized Jena, the advanced troops pushing beyond it to the hill known as the Landgrafenberg, on the left bank of the Saale. The Centre moved on Naumberg, thus becoming the right, while Soult was at Gera and Ney at Auma, the front being covered by Murat's Cavalry as far as Leipzig. The Saxons were now cut off from Dresden. The Prussians, however, had determined to retreat behind the Elbe, and all intention of moving to the right bank of the Saale, which Hohenlohe desired, had been given up. This was the reason why, when ordered to concentrate behind the river, he had at first left troops at Roda.

Brunswick now moved from Erfurt, by Weimar towards Kosen, Hohenlohe covering the movement from a position on the left bank of the Saale about Jena. The road the former marched by crossed the Saale at Kosen. He hoped to hold passages of the Unstrut and secure his retreat across the Elbe. Rüchel was to hold Weimar and rally the Duke of Weimar (coming up from Gotha) there, then with Hohenlohe rejoin the main army and fall back on Magdeburg.

On the 13th the French Left and Right moved on Jena. Lannes reached the Landgrafenberg and the Weimar road, and Napoleon ordered the concentration of the whole of his army except the two corps of Bernadotte and Davout, which had been sent on to seize Naumberg and block the road to Leipzig. Napoleon from the Landgrafenberg saw Hohenlohe's troops stretching back towards Weimar, where Rüchel

was. Brunswick's march along the valley of the Ilm was invisible to him. Davout was now ordered to Kosen and across the Saale to Apolda. Bernadotte on Dornberg to close passage there, and thence on Apolda.

Hohenlohe, not thinking the main French army was behind the Landgrafenberg, took no steps to drive off Lannes. The valley of the Ilm concealed Brunswick on the march to Kosen from the Emperor, who thought the whole Prussian force was before him.

The next day, the 14th, Davout at Auerstadt met and defeated Brunswick, who was nearly double his strength, while Napoleon, twice the force of Hohenlohe, drove him from the field of Jena. Brunswick, retreating towards Weimar, was struck in flank by Bernadotte from Dornberg, and the fugitives from both battles, deprived of their line of retreat, fled in confusion across country to Magdeburg.

The French now had open a shorter line to Berlin than any available to their opponents.

Immediately after the battle the cavalry and the major part of the army followed the retreating Prussians to Weimar. The next morning the Emperor sent Murat to Erfurt, which he reached the same day. Ney followed to support him. From Erfurt the troops were to move towards Magdeburg, whither the Emperor believed the Prussians had retreated; Soult was to aid Murat and Ney by moving on their right flank, while Bernadotte was to move on Nebra to stop any movement of the Prussians towards Halle; Davout to occupy Naumburg and Freiburg. Thus the passage of the Upper Saale would be held and Prussian access to the bridges over the Elbe at Dessau and Wittenberg cut off.

On the 20th of October Davout reached Wittenberg; Lannes followed by Augereau Dessau, thus securing the bridges over the Elbe and the shortest road to Berlin. The Guards behind these two corps.

On the same date Murat reached Magdeburg which he

invested, being followed by Ney and Soult. Bernadotte moved up from Halle to Alsleben after beating the Prussian Reserve at the former place and driving it back on Dessau.

Ney was told off to blockade Magdeburg; Soult was kept in the neighbourhood of Magdeburg to watch the Grand Duke of Weimar, while Lannes and Murat were ordered by Dessau to Berlin. Hohenlohe, who with the bulk of the Prussian army had fallen back to Magdeburg, finding himself pursued, retreated from it on the 21st, before Murat had sufficient strength to stop him. He intended to move to Stettin by the roads north of Berlin, Blucher acting as his rear-guard. The German Reserve, under the Duke of Weimar, which had been at Erfurt on the 15th, had fallen back from there and reached Sandau on the Elbe on the 26th.

Hohenlohe was at Neu-Ruppin on the 25th.

On this date Davout reached Berlin, followed by Augereau. On the 27th Napoleon and the Guards arrived. Lannes captured Spandau on the 25th, and was the next day sent with Murat, who had come up from Magdeburg, after Hohenlohe.

On the 28th Hohenlohe, attacked by these two, surrendered at Prenzlau.

Blucher had lost touch with the force he was covering, and now found himself cut from Stettin. He therefore turned round, joined the Duke of Weimar, and pressed by Bernadotte in rear, by Soult on the west, and Murat on the east, he was driven north to Lubeck, near which town he surrendered on the 7th November.

Comments.

There is no better example than this campaign of the value of the initiative. Each side was at first ignorant of the other's exact position. But while Napoleon was by the concentrated form in which he moved his troops able to

meet the Prussians wherever they were, the latter were straggling and dispersed over too great an extent of country because they were undecided which of two General Ideas should be followed. From the moment the campaign opened the German movements were only made to counteract those of the French, and were entirely dependent on them. Both General Ideas of the Prussians were bad; for they involved the separation of their army into two parts for no adequate reason, divided by the formidable obstacle of the Thuringian Forest.

Napoleon's position was always more favourable than his opponent's, as the latter had to form for battle to a flank somewhere near Jena under any circumstances, and this place was perilously near their line of communications by Weimar on Halle or Magdeburg; whereas Napoleon's front for battle fairly covered his line of retreat back on Neustadt, Schleiz, Hof, and Kronach.

The want of proper intelligence led Napoleon to leave Davout in a somewhat isolated position at Naumberg. Had he known the relative strengths of the forces opposed to himself and his marshal he would have strengthened the latter. But it was not till the news came from Davout on the 15th that the Emperor understood he had not had the whole German force before him. Similarly Hohenlohe made no effort to turn Lannes off the Landgrafenberg, because he did not appreciate that he formed the advance-guard of the main French Army.

Bernadotte has been blamed, and rightly, for remaining inactive at Dornberg. He ought to have advanced across the Saale to aid Davout, who was at one time sorely pressed at Auerstadt.

After the victories on the 14th October Napoleon shifted his line of communications to the road from Erfurt through Fulda to Mainz, because this was a shorter and better road than his former line on Strassburg, and because it was

more perpendicular to his front of operations when moving on Berlin.

As to the pursuit there is little to be said. It was carried out with the utmost vigour, the Emperor always endeavouring to meet and crush the disorganised Prussians. The result was the total annihilation of the force which had fought against the French at Jena and Auerstadt.

CAMPAIGN OF 1809.

(See Map No. 3.)

The special points illustrated by this campaign are—

1. The necessity for an appropriate Strategical Deployment shown by the difficulty Napoleon was placed in by Berthier misunderstanding his instructions.

2. The advantages to be obtained from Strategical Penetration and the use of Interior Lines.

3. The need when using Interior Lines against an enemy to deal with that wing of his forces first which most threatens the assailant's line of communications. This the Archduke failed to do.

4. The difficulty before the invention of the telegraph of combining movements by two different lines of operations—*e.g.*, the Archduke Charles and Bellegarde.

Napoleon knew that the Austrian troops in Italy might be brought up to aid their forces concentrating on the Inn, and the Viceroy of Italy had orders to follow them. It was, however, desirable to beat the Austrians in Austria before their Italian army could come to their aid. The Emperor believed that the enemy was somewhat more advanced with his preparations than he was, and this influenced the line of action he adopted.

The forces available were as follows:—

The French, Bavarians, and Allies—	
3rd Corps (Davout)	66,000
4th Corps (Massena)	40,000
Oudinot's Corps	14,000
Lefebvre's Corps (Bavarians)	32,000
Vandamme's Corps (Wurtembergers)	13,000
Reserve Cavalry	11,000
Total	176,000

Behind these were the Imperial Guard and other troops. The French Immediate Base was the Danube and the Lech and the countries forming the Confederation of the Rhine.[1]

The Austrian Army was composed as under:—

Under the Archduke Charles advancing from the Inn against the French—

3rd Corps (Hohenzollern)	140,000
4th Corps (Rosenberg)	
1st Reserve Corps (Liechtenstein)	
6th Corps (Hiller)	
2nd Reserve Corps (Kienmayer)	

Under Bellegarde in Bohemia, moving on Ratisbon—

1st Corps (Bellegarde)	50,000
2nd Corps (Kolowrat)	

The latter force was based on Bohemia, the former on Vienna. Each side had a re-entrant base. For Napoleon proposed to employ the Lech and the Danube, while the Austrians had the latter river and the Inn.

The Archduke's General Idea was to pass the Inn, push back the Bavarians from the Isar, then to turn northwards, penetrate the French Army, of which the Left Wing under Davout was at Ratisbon and the Right higher up the Danube, then crush the former, aided by Bellegarde.

The General Idea of the Emperor was to push on Vienna, but as the Austrians had the initiative, he could at first only deal with their movements.

[1] In this year, as in 1805, Napoleon used the Danube as his line of communications for the force while advancing on Vienna.

Napoleon learned in March that the Austrians were preparing for war. He calculated they would be able to take the field about the 10th April. He determined in this case to assemble his army in a position from which he could threaten his adversaries' communications. To this end he wrote to Berthier (his chief of the staff) to concentrate the army behind the Lech, the right at Augsburg, the left on the right bank of the Danube from Ingolstadt to Donauwörth, the latter place to be the "most central point of the line." Napoleon adopted thus a re-entrant Immediate Base for his Strategical Deployment, the choice of which would suffice to render the Austrians circumspect in their advance. At the same time he ordered Augsburg, Passau, and Ingolstadt to be fortified, bridgeheads to be constructed at the last-named place, and to command the passages over the Lech.[1]

When the Emperor thought that the war might be postponed for a few days, he proposed to assemble the main body of his troops at Ratisbon and a portion only at Augsburg, thus shifting the bulk of his forces to the left.

His object in so doing was to be in a central position to move against the Austrians in whatever direction they might take. If they advanced on Cham, they would be met upon the Regen; if they moved on Nuremberg or Bamberg, Napoleon could cut their lines of communciation with Bohemia. If they marched on Dresden, he would follow them through Bohemia into Germany, while he hoped to defeat the main Austrian army before their troops from Italy could move through the Tyrol.

Berthier muddled up the two plans together, directing Davout and Oudinot upon Ratisbon, and spreading the troops from thence along the Danube to Augsburg.

The Austrians had crossed the Inn on the 10th, and, reaching the Isar, forced its passage on the 16th, the bulk at Landshut, the right at Dingolfing. On this day the

[1] Compare his action in 1806, see p. 56.

French forces were grouped in two bodies, the one at Ratisbon under Davout, the other under Massena at Augsburg (his own and Oudinot's corps), about 76 miles apart. The Bavarians who had held the Isar fell back towards the Danube between Neustadt and Kelheim, where they were joined by the Wurtembergers.

When Napoleon heard of Berthier's mistake he immediately took steps to repair it. He reached Dillengen on the evening of the 16th, and at once ordered a concentration of his army—viz., the right wing to Pfaffenhofen, the left wing to Abensberg, Davout being ordered to this point from Ratisbon. By this movement of his right he would stand on the flank of the Austrian advance towards Ratisbon.

On the 18th the Archduke moved with the 3rd, 4th, and 1st Reserve Corps towards Ratisbon, reaching Rohr, while the left, consisting of the 5th, 6th, and 2nd Reserve Corps, was pushed to Siegenburg. Davout, on the 19th, commenced his march up the right bank of the Danube and came in collision with the Austrians.

On the 20th half of Davout's corps held Tengen, the other half moving on Rohr, the Bavarians and Wurtembergers advancing in the same direction, followed by Vandamme. Massena, with Oudinot, moved on Landshut. The French, with 65,000, crushed the Austrian left wing, 50,000, and drove it back by Pfaffenhofen on Landshut. The next day it fell back over the Isar.

Napoleon, now leaving a small force to pursue the Austrian left wing towards Braunau, concentrated his army, 75,000, against the Archduke with 40,000, and beat him at Eckmühl. Bellegarde had in the meantime occupied Ratisbon, and the Archduke, crossing the Danube there, fell back with him on Cham.

The Austrian main body, thus separated from the left wing by the river, was unable to re-unite with it, as the French anticipated their efforts at the only two bridges which then existed between Passau and Vienna — viz., at

Manthausen and Krems. The Archduke with the bulk of his forces therefore retreated on Budweis. Napoleon followed up his left wing and reached Vienna on the 11th May, and on the 13th the capital surrendered to him.

Comments.

On the 19th, when the Archduke moved towards Ratisbon, he was obliged to leave his left wing to guard against a French attack on his communications, and hence it would have been better for him to have moved against the French centre and driven his opponent across the Danube before he turned to attack Davout. By moving towards the latter first, he gave up the advantage of Interior Lines to the Emperor, for his army was divided into two portions forty miles apart. The latter was not slow to take advantage of the opening. First concentrating against the Austrian left, he crushed it and drove it over the Isar, thus penetrating between the divided Austrian forces. He now concentrated on his left, beat the Archduke at Eckmühl and thrust him over the Danube. With forces not much superior to his opponent, Napoleon always contrived to meet him with considerably greater numbers. But it must be remembered that had the Archduke moved with greater celerity he might himself have done the same to the French by advancing with his whole force from Landshut towards the Danube.

There was no proper correlation between the movements of the Archduke and Bellegarde. Had the latter been able to take Ratisbon and issue at once on Davout's rear, the Austrians would have outnumbered the French at Eckmühl and have struck them both in flank and front. In those days without the telegraph widely separated Lines of Operation were difficult to work harmoniously together. Bellegarde took no practical part in the struggle, his only use being to cover the retreat of the Archduke's beaten forces after Eckmühl.

CAMPAIGN OF 1815.

(See Map No. 5.)

The special points illustrated by this campaign are—

1. The necessity for allied forces to support one another, even if one of them should expose its line of communications. Contrast in this particular the Campaign of 1796.

2. The danger of widespread cantonments when attack is imminent.

3. The need of acting with decision and energy when seeking to beat two different armies in succession.

4. That when acting by Interior Lines against two armies the retarding portion of the force should be so directed that it can rejoin its main body before the two separated armies can come together—*i.e.*, it must be on the interior side of the force it is retaining. The direction given to Grouchy was too eccentric.

5. That if the two separated armies are able to join on the battlefield the result will probably be disaster to the force so struck.

6. The danger of a defile in rear of a retreating force.

In this campaign the Anglo-Allied army, under Wellington, 106,000 strong, occupied a line of cantonments from Oudenarde to Quatre Bras, with communications on Ghent and Ostende and also through Brussels on Antwerp. The

Prussian forces, commanded by Blucher, extended from Charleroi to Liége, whence their line of communications led back to Cologne. Their strength was 117,000. Napoleon by a masterly series of manœuvres massed his army of 125,000 about Philippeville, his intention being to act in succession against the Prussian and English armies, in the hope that he might defeat them in succession, and that each would then retire along its own line of communications—*i.e.*, he expected to penetrate between them and beat them in detail.

The respective armies were organised as follows:—

The Anglo-Allied—

1st Corps, Prince of Orange	25,000
2nd " Lord Hill	24,000
Reserve, Duke of Wellington	21,000
Cavalry	14,000
Artillery Corps and Garrisons	22,000
	106,000

The Prussian—

1st Corps, Zieten	31,000
2nd " Pirch I.	32,000
3rd " Thielmann	24,000
4th " Bülow	30,000
	117,000

The French—

1st Corps, D'Erlon	20,000
2nd " Reille	24,500
3rd " Vandamme	19,000
4th " Gérard	16,000
6th " Lobau	10,500
Guards	21,000
Cavalry, Grouchy	13,500
	124,500

The operations commenced by the French crossing the frontier on the 14th June and capturing Charleroi, which

commanded the passage over the Sambre, and was on the most direct road to Brussels which formed the line of division between the two armies. Wellington expected the attack to be delivered against his right, knowing the value of his communication by canal from Ostende to Ghent.[1] His assumption does not seem to have been warranted; for the scattered formation of the Allies allowed Napoleon to act against them in succession, and it was natural for him, therefore, first to attack the Prussians, who were the nearer.

Although the Allied commanders knew two days beforehand that the French were concentrating on the frontier, they took no practical steps to meet them. Blucher, indeed, had ordered on the 14th the concentration of his four corps on the line Sombreffe-Charleroi; but Wellington did nothing, and even on the 15th, when the Emperor invaded the Netherlands, owing to the failure of his own outposts and the neglect of the Prussians to send in proper information, he was unable to do more than order the concentration of his troops at their alarm-posts. The consequence was that on this date Napoleon captured Charleroi with very little opposition, and but for delays which occurred in the march of his corps would have inflicted a severe defeat on the Prussians, who had only one corps (Zieten's) available to oppose him.

Another result of the procrastination of the Allies was that on the 16th Blucher had only three out of his four corps to meet Napoleon at Ligny, and was defeated. The Emperor himself did not act with his usual promptitude. For he was not ready to attack the Prussians till 2.30 P.M., thus giving time to Pirch and Thielmann to come up to the support of

[1] Ostende was easily accessible from England, and a canal ran from it to Ghent. Antwerp, on the other hand, was on the Scheldt, a difficult river for sailing vessels to navigate. Hence from Wellington's point of view the communication to his right was more valuable than that to his immediate rear. The fact that his cantonments did not cover the former so well was discounted by his belief that he, not Napoleon, would assume the offensive.

Zieten, who in the early morning was exposed to Napoleon's army in an isolated position.

When the Emperor had determined to attack the Prussians with the chief portion of his force, he placed two corps, Reille's and D'Erlon's, under Ney, and on the 16th gave him the task of defeating any troops about Quatre Bras and aiding the attack on the Prussians with one division. But Ney, whose troops were slow in coming up, failed to attack the Anglo-Allies at Quatre Bras until between 1 and 2 P.M. D'Erlon's corps was, by the mistaken zeal of an aide-de-camp, ordered off to support the Emperor, and spent the day marching and countermarching between Ney and Napoleon, aiding neither in the operations. Wellington was thus enabled to bring up sufficient troops to Quatre Bras and beat back all attacks.

On the 17th Wellington, hearing of Blucher's defeat, retreated to Waterloo, followed by Napoleon with the bulk of his forces. The Prussians meanwhile had fallen back on Wavre, so as still to be able to help Wellington, instead of retiring along their line of communications towards Liége. Napoleon again delayed, and instead of hanging on to the skirts of the retreating Prussians with his cavalry from the moment the battle of the 16th was won, did not even attempt to follow them till the next afternoon, and then despatched Grouchy with Vandamme's and Gérard's Corps and a division of the 6th Corps, besides cavalry, to Gembloux, believing that the Prussians had fallen back towards Liége, and told him to pursue the defeated enemy. The direction given was too eccentric, and Grouchy failed to ascertain the exact direction of the Prussian main body.

On the 18th Wellington resisted the attacks of Napoleon at Waterloo, while Blucher struck him in flank with the 4th Corps and parts of the 1st and 2nd Corps. The result was his total defeat. On the position which the French had occupied in the morning the Anglo-Dutch troops bivouacked for the night, the Prussians, by a

mutual understanding between the two commanders, carrying on the pursuit.[1]

Three brigades pursued the French as far as Genappe. Two regiments of cavalry and about two battalions of infantry pushed on beyond. Fatigued with marching and fighting the latter rapidly fell away; but the cavalry continued the pursuit to Frasnes, where they halted. The French army had ceased to exist, and recrossed the frontier a disorganised mass of fugitives.

The Allies followed quickly after them, and pushed them almost without pause to Paris, the environs of which were reached on the 29th June, Napoleon then leaving the capital.

Comments.

The student of Napoleon's campaigns will find in this a good example of the Emperor's execution falling short of his conception. The task he set himself was too great. The general idea was excellent, but its sole possibility of success lay in rapid execution. He struck the Allies at their weakest point, their line of junction. Wellington and Blucher alike, the former especially, played into his hands by their tardy concentration. But his procrastination on the 16th and 17th, his failure to keep touch with the Prussians, and the wrong direction he gave to Grouchy, prevented him from inflicting a severe defeat on the Duke. On the other hand, Blucher's support of the Anglo-Allied army and his unhesitating abandonment of his best line of communication must remain an example for all time of the proper method of aiding an ally. It is a strong contrast with the conduct of Colli and Beaulieu in 1796. In that case each commander thought more of his own safety than of mutual combination. But in 1815 Blucher subordinated

[1] Grouchy, who had advanced towards Wavre, was kept at bay by the Prussian 3rd Corps, and had no influence on the battle.

everything to concentration for the tactical blow, and Wellington risked attack by superior forces because he knew that with Prussian aid victory was certain.

Grouchy should have been instructed to use his cavalry at once to keep touch with the Prussians, while his main body ought to have kept between them and Napoleon.

There were three reasons why the defeat of the French was so disastrous. Firstly, Napoleon prolonged the fight until he had no reserves left to cover retreat; secondly, because the Prussian attack threatened directly the line of retreat of the French—*i.e.*, the Genappe road; and thirdly, because of the defile which existed at this village, which, being blocked by vehicles, broke up the troops into a mass of fugitives who tried to cross the Dyle at every available spot. Napoleon suffered the consequences of unsuccessful strategical penetration.

Pushed with the utmost audacity the tactical pursuit completely disintegrated the French army, while the strategical pursuit by which it was followed gave the latter no time to get together again.[1]

[1] Full details of this campaign will be found in the author's recently published work, 'The Campaign of 1815, chiefly in Flanders.'

CAMPAIGN OF 1866.

(See Map No. 6.)

The special points illustrated by this campaign are—

1. The influence of railways on Strategical Deployment. Thus Moltke determined to concentrate his forces into two main bodies, the one threatening Saxony from Brandenburg, the other Bohemia from Silesia, because the direction of the railways was such that, in his own words, "to use them all simultaneously" it was necessary at first to disperse the troops over a considerable length of frontier.

2. The advantage and disadvantage of two different lines of operation. The advantage was reaped on the battlefield of Königgrätz; the disadvantage was shown by the variation in the views of the Prussians owing to the uncertainty they were in as to the Austrian line of attack, which might have come through Silesia or through Bohemia, and the danger they ran from acting in two separate bodies.

3. The value of Interior Lines. On the 27th June the Austrians could have acted alternately against the two masses into which the Prussians were divided.

4. The necessity, when defending a mountain-chain, of holding the passes.

5. The fact that strategical operations are dependent on tactical success, and the latter is largely influenced by armament, training, and tactics.

The forces available were—

Prussians.		Austrians.		
Army of the Elbe—				
14th Div.				
VIII. Corps				
First Army—		1st	Corps	
II. Corps		2nd	"	
III. "	Total, 278,000	3rd	"	
IV. "		4th	"	Total, 271,000
Second Army—		6th	"	
Guard Corps		8th	"	
I. "		10th	"	
V. "		Saxon	"	
VI. "				

The Austrian Immediate Base may be regarded as Vienna; that of the Prussians was Brandenburg and Silesia. The frontier formed the Base of Operations, and was a re-entrant for either side.

The Prussian General Idea had two problems to deal with—viz., an Austrian advance by Bohemia and along the right bank of the Elbe against Berlin, or through Silesia. The fact that the bulk of the Austrians was known to be concentrating near Olmütz, made either line of operations possible. The original idea was to have six and a half corps available for the invasion of Saxony and to oppose an Austrian advance through Bohemia, or advance into that country if the Prussians were ready before their opponents, while two corps were to check an advance through Silesia. But as the belief grew stronger that the Austrian main attack would be from Olmütz by Neisse, "the centre of gravity" of the Prussian plan was transferred to Silesia and the destination of the Guards and I. Army Corps was transferred from the First to the Second Army.[1] The Prussians thought at one time that the Austrians would

[1] These words were used by Prince Frederick Charles in objecting to the transfer of these two corps.

be ready before them, but ere hostilities commenced they found this was not the case.

The Austrians, feeling they would be compelled to assume the defensive, determined to concentrate their army to the north-west of Olmütz, the 1st Corps being about Königgrätz and Pardubitz, with a cavalry division to watch the passes in northern Bohemia. In this way it was thought a Prussian invasion either through Silesia or Bohemia could best be met.

The Elbe and First Prussian Armies commenced the invasion of Saxony on the 16th June—the Saxons falling back into Bohemia. Bohemia was entered on the 23rd, the Elbe and First Armies being united under Prince Frederick Charles.

The lines of operations of both armies were directed on Jicin, which was indicated as the point of junction. Prince Frederick Charles was told to push on as rapidly as he could, as the task given to the Crown Prince was the harder owing to his having to cross the Giant Mountains. It was estimated that the Austrians had two corps and the Saxons to oppose the Elbe and First Armies. By the 26th June the latter had almost reached the Iser about Münchengrätz. The Second Army was marching into Bohemia, the I. Corps towards Trautenau; the Guard being at Eipel and Kosteletz, the V. Corps at Nachod, and the VI. near Skalitz.

The bulk of the Austrian Army was about Josephstadt. The 1st Corps with the Saxons and a cavalry division under the Crown Prince of Saxony faced the Prussians on the Iser, and could have retained them, while Benedek, acting against the Second Army, could have crushed the latter in detail. Unfortunately he determind to use the bulk of his forces against Frederick Charles, who was distant about three marches, instead of against the First Army, which he could have reached in one march.

On the 27th the 10th Austrian Corps beat the I. (Prus-

sian) Army Corps at Trautenau, but the 6th was beaten at Nachod, and the Saxons and 1st Corps fell back to Jicin.

The next day, and on the 29th, the Austrians were again repulsed at all points, and orders were given for the whole army to retreat to a position at Dubenetz. But the advance of the First Army on his left flank compelled Benedek to fall back again on the 1st July, and he took up a position about Königgrätz on the 2nd. Touch between the Prussian armies was now gained—the Second being on the Elbe and the First and Elbe Armies at Miletin, Wostromer, Horitz, and Jicinowes. Both were ignorant of the whereabouts of the Austrians. But in the afternoon their position at Königgrätz was discovered by the First Army, and orders were issued to attack them the next day. The First Army was to attack in front; the Elbe Army the Austrian left flank; while the Second Army was to throw its weight against their right flank. The Austrians were severely defeated, and retreated across the Elbe in disorder.

Comments.

There are many points of interest in this campaign, which from a strategical point of view is most interesting to the military student. It was the first in which railways were used to a large extent for the Strategical Deployment, and their direction involved at first the dispersal of the troops over a wide expanse of country. This was not so objectionable in fact as it was in theory. To begin with, Moltke thought he might have to deal with an Austrian invasion directed against its natural objective, Berlin. To meet it, the best plan was to have the bulk of the army in a central position such as Görlitz, with a portion threatening Saxony from Torgau, while another part defended Silesia. It was, in fact, the old Napoleonic plan of a centre

and two wings. As the situation developed from this primary position an Austrian invasion of Silesia seemed probable. If this assumption were correct the Second Army had to be strengthened to meet it, and this was accordingly done. When it was at last seen that the Austrians were behind the Prussians in their preparations, the latter found their forces by the stress of events divided into two fairly equal bodies. To unite these was only possible by a forward movement, and as Prince Frederick Charles was believed to be opposed by three corps at the outside (as a practical fact only by two), while the remainder of the enemy was still coming up from Olmütz, an energetic advance of the First and Elbe Armies would give a reasonable prospect, by the pressure it would bring to bear on the enemy, of the Second Army being able to cross the mountains in safety. What would otherwise have been a capital fault was, owing to the situation and the tardiness of the Austrians, advantageous to the Prussians. But the danger of such widely separated lines of operations is nevertheless clearly shown, and was distinctly appreciated by Moltke. In the orders of the 22nd and 23rd June the necessity of a rapid advance was impressed on Prince Frederick Charles, once more on 28th, twice on the 29th, and again on the 30th June, yet his march from Reichenberg to Jicin, thirty-two miles, took from the 25th to the 30th—*i.e.*, five days.

On the 27th, the position was distinctly favourable to the Austrians. The dilatoriness of Prince Frederick Charles had allowed the Saxons and the 1st (Austrian) Corps to escape, while the I. (Prussian) Corps had been defeated at Trautenau, and there was still the opportunity open to Benedek of concentrating against the Second Army while debouching into Bohemia. But instead of doing this and merely holding back the First and Elbe Armies, which was what the strategy of the situation demanded, the Austrian commander had determined to deliver the main blow against the more distant

and merely contain the nearer. The consequence was the succession of defeats from the 27th to the 29th, followed by his retreat to Königgrätz and the crushing disaster he suffered there, due to the junction of his opponents on the battlefield.

If we compare the campaigns of 1796, 1815, and 1866, we find the same position occurring in each but with some slight differences. In 1796 strategical penetration was brought about by the energy displayed by Napoleon and the defeats he inflicted on the Austrians and Sardinians in succession. In 1815 he was unable to separate his opponents because he dallied in his movements, failed to pursue, and because the Prussians abandoned for a time their direct line of communications. In 1866 the Prussian General Idea, carried out with a lack of energy on the part of Prince Frederick Charles, gave Benedek for a time the advantage of Interior Lines; but he failed to utilise it, devoting his attention to the more distant of the two portions of the enemy instead of to the nearer, which was the same fault as the Archduke Charles committed in 1809.

Benedek committed a grave error when he took no steps to obstruct and defend the roads over the Giant Mountains. Had he done so he must at least have delayed the Crown Prince, but he allowed him to enter Bohemia practically without opposition. In 1796 Napoleon held the passes of Tenda and Ormea completely, and the summit of the Savona Pass. Benedek should not have gone beyond the mountains, but he might at least have contested the passage of the roads used by the Prussians.

The value of a superior infantry weapon gave the Prussians a great tactical advantage, which shows how necessary it is for a nation to keep its armament abreast of the times.

The advantage to be gained from a river which the re-

treating force can freely cross is clearly shown in the case of the Elbe, which stopped the Prussian pursuit after Königgrätz. On the other hand, in 1815, the Dyle, though not a very formidable obstacle in itself, yet swollen by the rain and with marshy banks, was passable only by a few bridges. The main road leading through the defile of Genappe, which was familiar to the French soldiers as being the road they had advanced by, formed the most natural line of retreat from the battlefield of Waterloo. It soon became blocked, and the river, thus traversable by carriages at only one point, was the final cause of the disintegration of Napoleon's army.

Lastly, it may be well to draw attention to the evil influence of politics on the conduct of the war. King William would not attack so long as he thought war avoidable. Had he allowed his troops to move on the 6th June they would have easily united in Bohemia, and probably have crushed the Saxons and the 1st Corps. Politics and strategy must act together. If the former interfere in the domain of the latter the result is always detrimental, and may be disastrous.

CAMPAIGN AGAINST BOURBAKI, JANUARY 1871.

(SEE MAP No. 7.)

THE special points illustrated by this campaign are—

1. The impossibility of manœuvring raw levies, ill-organised and equipped, against a regular army.
2. The effectiveness of a stroke delivered against the enemy's communications.

The right wing of the 1st French Army of the Loire, consisting of the 15th, 18th, and 20th Corps, total about 140,000, after its defeat on the 4th December 1870, was moved to the east under Bourbaki, strengthened by the addition to it of the 24th Corps and the troops under Cremer and Garibaldi. The force thus formed was given the task of defeating the German XIV. Corps under Werder, then besieging Belfort, and of subsequently acting against the invaders' lines of supply. The French Immediate Base was Lyons.

The following dispositions were made by the Germans.

Manteuffel was given the supreme command of a new force to be called the Southern Army, numbering some 70,000 men, consisting of the XIV., II., and VII. Corps. The last two Corps were ordered to Nuits-sur-Armançon and Châtillon-sur-Seine respectively, whence they were to press south through the defiles of the Côte d'Or to the aid of Werder. The latter was in the meantime to cover the siege

of Belfort whatever happened, and hold the advance of the enemy in check long enough for the other two corps to come up; and in case the enemy tried to evade him and march more directly to the north, he was to assume the offensive, and threaten the railways to which their want of organisation tied them.

Manteuffel's instructions were to move forward with the II. and VII. Corps, and attack Bourbaki's rear, should Werder not be in want of immediate support. The Germans drew their supplies from Chaumont, whence the railroad led back to Germany. When this line became too dangerous, owing to its proximity to Langres, Epinal was made use of.

Bourbaki's attempts on the 15th, 16th, and 17th January 1871 to defeat the force besieging Belfort failed, and he determined on the 18th to retreat towards Besançon, which he reached on the 22nd.

On the 12th January Manteuffel took over the command of the Southern Army at Châtillon, and, though neither the II. nor the VII. Corps was complete, he determined to press on with every available man towards Vesoul to the direct relief of Werder, leaving a detachment under Kettler to watch Garibaldi at Dijon and prevent his acting against the German communications.

But the crisis at Belfort was over on the 17th, and on the 18th Manteuffel determined to intercept Bourbaki's line of retreat with the II. and VII. Corps while Werder with the XIV. followed the French directly. He might, it is true, have acted on the safer plan of uniting his three corps in the neighbourhood of Rioz-Montbozon, but this would have resulted in nothing more effective than a mere following pursuit. But using his two corps to cut Bourbaki from Lyons offered prospects of a far more striking success. For the country could not long support so large a force deprived of communication with its base, except by a circuitous route by the country between the Saône

and the Swiss frontier, which was very difficult, especially for troops like the French with hardly any trains. Prolonged retreat would demoralise them, and they would probably be forced to cross into neutral territory where they must lay down their arms.

On the 23rd January the direct communication of Bourbaki with Lyons was cut by the VII. Corps seizing the Besançon–Lons-le-Saulnier road, and definite touch was obtained with the French force. The VII. Corps was now told off to bar the roads along the Doubs, while on its right the II. extending eastwards was to grasp any other lines which remained open for the enemy's retreat and then to combine operations with the XIV. Corps advancing from the opposite direction, so as to bring the enemy between two fires, whether massed at Besançon or echeloned between it and Pontarlier.

Bourbaki had hoped to resume the offensive from Besançon, but the state of his army rendered this impossible, and the town did not afford sufficient supplies to enable him to maintain it there. On the 26th January, therefore, he continued his retreat towards Pontarlier.

The result of the operations was that the French were gradually driven back and finally pinned fast at Pontarlier, all their lines of retreat into southern France being taken in succession, so that no course was left to them but to fall back over the Swiss frontier and lay down their arms. Eighty thousand thus surrendered, only the cavalry of the 15th Corps and a few hundred of the 1st Division of the 24th Corps escaping.

Comments.

Moltke described the General Idea of Manteuffel as a bold one, but likely to lead to great results. There was not really much risk in it, for the movements of Bourbaki's men previous to and during their attack on Werder in the

Lisaine position covering Belfort had shown that they possessed no great mobility and were incapable of sustained action. To threaten the line of retreat and communications of an enemy is always effective even with regular troops; it is doubly so with newly raised levies, ill organised and dependent on a railway for supplies. Manteuffel felt that he was justified, therefore, in aiming at the French communications, because to cut these was to ensure the ruin of Bourbaki's army, even if in doing so he somewhat disseminated his troops and ran the risk of fighting a battle facing his base. From the outset of the campaign there was little fear of the French acting against his divided forces by interior lines—*i.e.*, against Werder and then against the II. and VII. Corps, because they could not move with the required rapidity. After the defeat on the Lisaine there was none at all. The result was a most striking success, which ranks after Sedan and Metz as the greatest of the war, and has only been equalled in the records of military history by the results obtained from the French pursuit of the Prussians after the battles of Jena-Auerstadt.

These operations show very plainly how impossible it is for improvised forces to deal with properly trained troops. The country that waits for war before organising its forces ensures an extravagant outlay of money and life with the certainty of eventual disaster, even if it be possible to stave the result off for a time by the continued sacrifice of raw levies.

THE GERMAN PLAN OF CAMPAIGN IN 1870.

THE following pages, which are taken from 'With the Royal Headquarters,' by General Verdy du Vernois, show how the great Prussian General Von Moltke worked out the arrangement of the German forces for the war with France.[1] They instance the care which the Prussian staff displayed in considering all possible eventualities. What they did in this case they have done in many others, and it may be said generally that there is no possible campaign on which the German army might enter which has not had equal care bestowed on it.

Von Moltke has pointed out in the official account of the 1870-1871 war, and in other writings, that the expression "plan of campaign" does not mean a complete working out of all the operations to the end of the war, for it is impossible to foretell what will occur after the first collision with the antagonist What happens afterwards will depend on the circumstances under which it has taken place and the exact situation created by the result of the action. A commander-in-chief will, no doubt, always have certain main objects in view, which will take different shapes according to the character of the situation at the outbreak of the war, or the course which events may subsequently take. In 1870 there was no doubt as to what the main object was. It consisted in getting at the French army and beating it whenever found. That done, diplomacy would be free in its turn to attain its objects.[2]

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[1] This book is Volume I. of the "Wolseley Series." Its author, then a lieutenant-colonel, was head of a section of the Great General Staff during the war of 1870-71. It gives a most interesting account of the directing force of the German Armies.

[2] Moltke's 'Militärische Correspondenz,' which contains many projects for campaigns, should be read by all interested in this subject.

Different conditions may, however, make it necessary first of all to solve lesser tasks. Thus in the Danish wars the enemy's army was beyond our reach as soon as it withdrew to the great islands, and we had then to confine ourselves to the occupation of his territory on the mainland; we could only aim at the possession of such islands as it was possible to reach with the means available. But in a war with France, we saw that everything depended on defeating the French army, and there was, therefore, only one course for us to pursue—viz., to mass our own forces as near as possible to the frontier, and then after completing our concentrations, to make for the enemy, wherever he might be. Of course we might make our conjectures as to where we should find him, but whether the enemy would take exactly the course which we considered the right one, could not be foretold with any certainty. For the dispositions of an opponent depend on the views he holds and the objects he desires to attain. Hence just as opinions in ordinary life differ widely, even on the simplest matters, so also in war, what one side expects the other to do may often be exactly the reverse of what actually occurs.

Shortly after General von Moltke became chief of the staff of the Prussian army he laid down his views as to the conduct of a war against France. In the course of succeeding years these were revised and developed in accordance with the changes which had taken place meanwhile in the political and military situation, alterations and additional preparations being made wherever it seemed necessary. The General's plans had received the sanction of the King, and thus in 1870 all the orders and other arrangements needed when war might break out with France were all ready elaborated in the staff offices, and it was only necessary to fill in the date on each document. Similarly at the Ministry of War all the requisite preparations were finished and all instructions ready to be issued immediately.

The main idea of von Moltke's plan for the conduct of the war was to act on the offensive. With this end in view the massing of our troops had to be executed in such a manner that the war could be immediately carried into the enemy's country and in a direction which would ensure meeting his main body. Owing to its geographical position, the German territory on the left bank of the Rhine (Rhenish Prussia and the Bavarian Palatinate), which projected far into France, seemed to the General the fittest place for concentrating our forces. An advance was possible from here in every direction, even if the French were not to respect the neutrality of Belgium and to march through that country. At the same time, it was the best way of pro-

tecting South Germany. For if the French were to advance from Strassburg, we could, possessing as we did the passages of the Rhine, meet them with superior forces on either bank of the river. Should they make the attempt to push through Baden and Wurtemberg, such an undertaking could be easily checked on our part by an advance on the right bank, which would cut their communications and involve them in a catastrophe in case of defeat. The result of these considerations was that von Moltke determined to assemble the main force on the left bank of the Rhine, and to advance thence to seek the enemy and bring about a decisive action.

But he had also not forgotten the course the enemy might pursue to oppose him.

It may here be remarked that in making a plan of operations it is always well to begin first of all by getting a clear idea of what our own intentions are, and only then to ask oneself what the opponent may do to foil them. If the opposite course were taken, and one were first to consider what the opponent could do, and then deduce one's own plan, the latter would be dependent on the opponent's will. This would be to allow him to lay down the course of procedure and deprive oneself of the most important factor in the conduct of war—viz., the initiative.

Taking into consideration the movements the French were capable of, the General came to the conclusion that, owing to the geographical position of France and the arrangement of the railroads, the French army would most likely be assembled in two groups, the main army in Lorraine round Metz and a second of lesser strength in Alsace. If the French determined to concentrate a greater preponderance of their force on the one side or on the other, this would only be possible at the expense of the time which would be consumed in the transport by rail of the extra troops. To have acted thus would also have lessened the security of the territory denuded of troops.

Assuming the enemy to act as supposed, it was deemed advisable to push our main army forward towards Lorraine. At the same time it was not forgotten that by so doing the French corps, which would presumably assemble in Alsace, would be left on the flank, or rather in the rear, of our advance, and might by moving in a northerly direction seriously endanger any prolonged offensive movement towards the interior of France. Moreover, it was impossible to leave South Germany exposed to the attack of this force, even if it were only a small one. It was necessary, therefore, to have a separate army capable of meeting any French forces that might assemble in Alsace. By assembling it at first on both sides of the Rhine close to the frontier, we remained free

to use it as occasion might require, wholly or in part, on the one or the other bank of the river. But operations of the character indicated could only arise in case the French succeeded in assuming the offensive before we were ready. If no such movement took place on the part of the enemy while we were engaged in concentrating our forces, the army forming our left wing might then be utilised for the offensive against Strassburg by the left bank of the Rhine. This would stop any advance of the French towards Southern Germany, and thus effectually protect that part of our territory.

If, on the other hand, the enemy's forces in Alsace were to make a stand against us and be beaten, we should then be in a position to advance with part or perhaps the whole of our left wing into the interior of France.

Taking all these facts into consideration, General von Moltke's plan was briefly as follows: The greater part of our forces, divided into two armies on account of its size, was to be concentrated on the Saar and then pushed over it, while a third army was to be assembled between Landau and Germersheim, with a view to assuming the offensive against Alsace. The Baden and Wurtemberg troops were at first to be left on the right bank of the Rhine.[1]

It was also necessary to consider the possibility of the enemy landing on our coasts, and the effect of considerable French forces rapidly advancing into German territory without waiting to be completely equipped for war. From the former not much was to be feared, as our offensive movement into France would make the troops destined for a descent on the coasts of the North Sea and the Baltic much more necessary at home than there. In case the French should make such an attempt, the reserve formations available along the coast could meet them in sufficient strength, aided as they would be by an infantry division, which had to be left behind in any case, for use if necessary against Denmark, whose attitude was somewhat doubtful.

As regards an advance of the enemy with imperfectly mobilised forces, the General did not think it quite out of the question, but believed that such an operation would be highly dangerous and unfortunate for the French. We needed, in that case, only to place the points at which our own corps were to detrain a little farther back, which could be done even after the transport of the troops had already

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[1] This army was in the war known as the Third Army, and the Baden and Wurtemberg Divisions formed part of it. It was never necessary to leave these behind, as the French did not assume the offensive.

begun, and then we should be certain very shortly to have sufficient force at our disposal to meet the attack with every prospect of success, while the enemy would undoubtedly begin to feel all those disadvantages which must arise when troops are brought into the field before they are fully equipped for war.

Finally, our relations with Austria had to be considered. It was clearly quite natural that this State should be anxious to make good, at the first opportunity which offered, the damage which it had suffered in and since the unsuccessful war of 1866. Its internal difficulties and its financial position were, indeed, great obstacles, and it might be assumed that Austro-Hungary would only take part in the conflict if France gained some success. But still we were bound to reckon with the possibility of action being taken by the former. The existing conditions, however, furnished the means to meet this contingency. For the transport of the immense masses of men from the interior of Germany to and beyond the Rhine could only be accomplished gradually, and it was necessary to bring more than one corps by each of the through lines of railway, so that the last detachments could only be moved after a considerable interval. Before this was ended it would become clear whether Austria meant to enter at once into the conflict. If up to this moment she had not commenced to mobilise, a considerable start would be gained for our operations against France, which we were strong enough to begin without waiting for those corps left behind to be brought up by rail. These would, therefore, remain available if needed for use against Austria, and the General would have formed them into a defensive army, which, resting on Dresden and the fortresses of the Elbe, was considered sufficiently strong to meet the first advance of the Austrians.

Such were the chief points considered in General von Moltke's plan, and for which all the necessary preparations had been worked out absolutely complete, down to the smallest detail, and approved of by the King. When, therefore, the order for mobilisation was given there was nothing to be altered, and everything ran its course as intended.

It is evident from what has been said that at the commencement of the war it was, speaking generally, the French army which formed our objective: at the same time, it is clear that the plan of operations could not possibly go beyond the assembly of our forces, their distribution, and the beginning of hostilities. After this anything like a prearranged plan was out of the question; what would be done next depended entirely on the way events might shape themselves. But no one could foresee with certainty how this would be.

What I have said will probably suffice to give a rough outline of the nature of the plan of campaign and of the considerations on which it was based, although a good many other and important factors had to be dealt with in working out so extremely complicated an affair, many of which would have considerable influence on the issue of the war.

The manner in which the various armies were constituted depended partly on the tasks allotted to them and partly on the direction of our railway lines. The First Army was made up of the VII. and VIII. Army Corps, the Second Army of the Guards, the III., IV., IX., X., and Saxon Corps; while the Third Army was composed of the V. and XI. Prussian and the I. and II. Bavarian Corps, as well as the Wurtemberg and Baden Divisions.

At first the corps which would be the last to be transported, and which were in case of need reserved for action against Austria, were not incorporated in the armies. They were the I., II., and VI. Army Corps, as well as the 17th Infantry Division, which was told off to watch Denmark. The newly-formed Landwehr Divisions, 1st, 2nd, and 3rd, and Guards were also left behind, for the present to protect the coast.

The cavalry, except that which was attached to the infantry divisions, was formed into six independent divisions of unequal strength, some of which were placed under the commanders of the three armies, while others at first remained available for use as needed.[1]

Comments.

It will be seen from the foregoing pages that von Moltke's General Idea for the operations against France involved, first of all, the offensive, so that he might have the initiative from the first and impose his will on his opponent. Secondly, the deployment of the German forces in the most favourable position for this purpose, but also in one which would enable him to deal with any offensive movement the enemy might make at the beginning of the war. Thirdly, it will be observed that South Germany was to be defended indirectly by the force to be employed for the offensive in Alsace

[1] See pp. 6 and 7.

acting on the flank of any French army which might assemble there. It deals also with the defence of the coast provinces of Prussia and with the possibility of Austria joining in the conflict.

When war actually broke out there was some apprehension on the German side that the French might push forward at once and endeavour to interrupt the German deployment. Von Moltke sent to the King of Prussia the following memorandum :—

BERLIN, 22*nd July* 1870.

The French from the line Thionville-Weissemburg had not passed the frontier yesterday, but they may do it at any moment.

If they assume the offensive to-day (without waiting for the reservists to join) with 142,000 men they may, if they advance resolutely, reach on the thirteenth day of our mobilisation the neighbourhood of Kirchheim-Bolanden (to the south of Mainz and the west of Worms).[1]

At the worst on the fifteenth day they would reach the Rhine, but then they would find—

Facing them at Mainz our III., IV., and IX. Army Corps—i.e. 100,000 men.

On their right flank at Worms the II. Corps, the Baden Division, and a portion of the Wurtemberg Division, 50,000 men.

On their left flank at Kreuznach the VIII. Corps, 20,000 men.

The VI. Corps will remain available to act against the communications of the enemy.

This shows plainly that the French would have gained nothing from their raid, while there would have been the certainty that the imperfectly mobilised forces would have been met and beaten by superior numbers in a position in which defeat would have meant disaster.

[1] The 16th July was the first day of mobilisation.

MANCHURIAN CAMPAIGN.

(See Map No. 8.)

The special points illustrated by this campaign are :—

1. The value of sea power, as giving to its possessor the advantages of a re-entering base.
2. The mistake of attempting to hold a false strategical position, as the Russians did on the Yalu.
3. The mistake of undertaking operations with inadequate forces, as shown by Stackelberg's advance to the relief of Port Arthur.
4. The difficulty of moving large forces without sufficient roads and railways, as exemplified by the slow rate of the Japanese advance.
5. The inconclusive results obtained from the strategical frontal attack, as illustrated by the Japanese attacks on the Russian positions.

The Japanese plan of campaign involved in the first instance sea supremacy, which was needed before the troops could be transported in safety to the Asian mainland to attack and drive the Russians out of Manchuria. To conceal their object and prevent the Russians garrisoning Seoul, the mobilisation orders were not issued till the Korean capital had been secured. Had the attention of the Russians been drawn to the impending outbreak of hostilities, it would have been quite possible for them to have landed troops, which

they had on board their ships at Chemulpo, and seize it. In addition to which Russian troops might have come down from the north for the same purpose, as they were known to have some at Feng-huang-cheng. By seizing Seoul and pushing forward to the Yalu, the northern ports in the Korean peninsula would be gained for disembarkation, and a long and toilsome march from Fusan[1] to the Manchurian frontier saved.

The naval expedition was divided into two parts, the greater portion of the fleet being sent to Port Arthur, and the remainder with the small force destined to seize Chemulpo and the capital.[2]

On the 8th and 9th February 1904 the first naval attack was made against Port Arthur with success, and was renewed on the 14th February. Practically from this date the Russian fleet took no further active part in the war. In Port Arthur, however, it had a dockyard in which it could refit, and therefore, unless the harbour could be stopped or the fleet destroyed, the Japanese fleet was always liable to attack. The blocking operations were never completely successful, and on the 23rd June the Russian ships came out but were driven back. On the 10th August the Russian ships again made a sortie, but the fleet was dispersed, some were driven to neutral ports, and the remainder forced to return. This sums up the whole of the Russian fleet movements from Port Arthur. The cruiser squadron from Vladivostock, beyond capturing a few Japanese merchant ships and two transports, did nothing.

Chemulpo was seized on the 8th February, Seoul on the 9th, and the Russian ships at Chemulpo destroyed on the 15th. The 12th Division commenced disembarking at this place on the 16th February, and completed the operation by the 27th. Part of it was sent on ahead and came into

[1] Fusan is at the south end of the Korean peninsula, 180 miles from Seoul.

[2] This consisted of four battalions on a peace footing.

collision with the Russians at Ping-yang on the 28th February. By the end of March the 2nd and Guards Division, completing the First Army under Kuroki, landed at Chinampo, and on the 21st April the whole army was concentrated at Wiju.

30*th April–*1*st May.*—Battle of the Yalu. Kuroki with about 40,000 men defeated Zasulich with 15,000. The Russians fell back towards Mo-tien-ling.

6*th May.*—The First Army occupied Feng-huang-cheng, the coast-base of this force being now transferred to An-tung.

About the same date the Second Japanese Army (1st, 3rd, and 4th Divisions) under Oku, some 45,000 strong, commenced landing at Pi-tzu-wo. It had been waiting the result of the fighting on the Yalu at Chinampo in case of defeat of the First Army, which it could have supported if necessary.

19*th May.*—The Fourth Army began landing at Ta-ku-shan. It consisted of the 10th Division and other troops, about 20,000 men under Nodzu.[1]

26*th May.*—The Second Army defeated a force of Russians at Nan-shan, covering Port Arthur, who then fell back on that fortress. By this action the Japanese gained the harbour of Dalny, and isolated Port Arthur. At the end of this month the Russians had 70,000 men south of Mukden, about 40,000 from Harbin to Lake Baikal, besides 25,000 at Vladivostock, and a like number at Port Arthur. The Japanese had about 120,000, but these were by no means concentrated. The situation was at this time as follows:—

The main Russian Army was at Liao-yang about 70,000 strong. Against this could be moved the First, Fourth, and Second Armies, but it was not possible to concentrate them owing to the country, before advancing. Kuroki and Nodzu therefore moved, the former by the Mo-tien pass, the latter

[1] It was subsequently reinforced by another division.

by the Fen-shui, while Oku with the Second Army advanced up the railroad.[1]

Nogi with the Third Army formed about the middle of May by the 11th Division and 1st Division (the latter from the Second Army) was given the task of besieging Port Arthur.[2]

Stackelberg was sent down with 35,000 men to relieve Port Arthur, and on the 15th June Oku met and defeated him at Te-li-ssu. The Russians retired to Kai-ping, and Oku continued his advance to within twenty miles of this place, where the main road to Mukden turns off to Niu-chuang.[3]

Kuroki also moved forward and seized the Mo-tien pass on the 26th-27th June, which was abandoned by the Russians although they had fortified it. Nodzu seized the Fen-chui pass about the same time. Bad weather stopped the Japanese advance, but on the 9th July Oku captured Kai-ping and made connection with Nodzu. On the 4th and 17th July the Russians attacked Kuroki, but were driven back, and two days later the Japanese right drove the Russians farther back.

23rd July.—Oku advanced again, his force being strengthened by the 6th Division from Japan.

25th-26th July.—He attacked the Russians at Ta-shih-chao and drove them back. The Japanese occupied Yan-kou and subsequently Niu-chuang, which formed a valuable base, and gave them the Liao river for communication to the front.

Kuropatkin now determined to attack Kuroki, who was isolated from the rest about the Mo-tien pass, but the latter advanced, and on the 30th-31st July drove back the Russians over the Lan-ho back to An-ping. On the 3rd August Oku occupied Hai-cheng, Nodzu moving up with him. The Japanese now halted for three weeks, twenty-five miles from the main Russian position in front of Liao-yang.

Nogi made several efforts to take Port Arthur from the

[1] Ling means a pass. Hence Mo-tien-ling is the Mo-tien pass.

[2] He subsequently received the 9th and 7th Divisions, and a Reserve Brigade.

[3] The Second Army received the 5th Division before it advanced, having given the 1st Division to the Third Army.

19th to 24th August. A second assault was made on the 30th October, and then the operations assumed more the nature of a regular siege.

The advance to Liao-yang was resumed on the 25th August. Kuroki was opposed by some strength, Oku and Nodzu hardly at all. Continuous fighting now ensued, known as the battle of Liao-yang, and on the 28th August the Russians fell back to their main position at that town, and Kuroki coming up on the right gained contact with Nodzu and Oku. The united Japanese forces again attacked on the 1st September, and the Russians were forced back on their second line of defences in front of Liao-yang, and on the 4th they retreated towards Mukden and occupied a position lying across the railway half-way between that place and Liao-yang.

Kuropatkin now determined to take the offensive as the Japanese had assumed a defensive attitude, and because pressure appears to have been put on him to do something for the relief of Port Arthur. In a battle which lasted from the 9th to the 14th October, known as the battle of the Sha River (Sha Ho), the Russians were repulsed with a loss of 50,000 men, and fell back to the position they previously held. The Japanese intrenched themselves opposite to them.

2nd January.—Port Arthur fell. On the 11th January the Russian cavalry under Mischenko made an attempt to raid round the Japanese right to capture their depot at Niu-chuang and sever the railway. They succeeded in the latter object, not in the first, and were eventually forced to retreat. The Russians made another advance, attacking the Japanese left in a battle at Hei-kou-tai, which lasted from the 25th to the 29th January, but were beaten back.

The fall of Port Arthur released the Third Army, and it was moved to the Japanese left, while the Yalu or Fifth Army, under Kamamura,[1] was brought up on the right.

[1] Formed by the 11th Division from the Third Army after Port Arthur fell, and some reserve troops.

23*rd February.*—The Japanese commenced offensive operations by advancing their right. Continuous fighting, known as the battle of Mukden, ensued, which was terminated on the 10th March by the Russian right being defeated and their line of retreat threatened by Nogi. Kuropatkin therefore drew off his troops towards Harbin.

Comments.

The isolated position of the Russian detachment on the Yalu is impossible to justify. The Japanese with command of the sea possessed a re-entering base against it, and the advance of the Fourth Army from Ta-ku-shan would have compelled retreat even if Kuroki had not beaten it. Zasulich's force was too small for any effective purpose. Similarly Stackelberg's advance along the railway for relief of Port Arthur was useless, because not made in sufficient strength. The true *rôle* of a fortress is to occupy the enemy's forces, and, unless vitally necessary, it should never be relieved. Thus the Russians wasted their whole military strength in the Crimean war in their endeavours to relieve Sevastopol, as did the French in 1870 in relieving Paris. Had Sevastopol fallen, it would not have affected Russia materially, while the Allies most certainly could not have marched up through Russia. In 1870 the French had better far have directed their efforts to destroy the German communications. So in this war the isolated effort to relieve Port Arthur was ineffectual and useless. Its siege was attempted for two reasons—viz., political pride and the desire to get the Russian fleet. Instead of trying to relieve it the Russian troops would have been better employed in a concentrated movement against the divided Japanese forces. They might have held Kuroki and Nodzu and have crushed Oku. This would have compelled the

First and Fourth Armies to fall back. The slowness of the Japanese advance and isolated position of Oku invited such a course of action.

If the Russians had made no attempt to relieve Port Arthur, but had waited for the Japanese advance about Liao-yang, the result would have been to weaken the striking force of the latter, while the Russians would have been strengthened. Even if the Russian Baltic fleet had still been crushed, the defeat of the Japanese on land would have been very serious.

The position on the Yalu may be likened to Chanzy's in the campaign of Le Mans, where he left his strong position and fought in front of it. For the Russians at Liao-yang held all the roads from the coast, and were in a strong position where the Japanese must have attacked them.

The value of sea power is clearly shown. It enabled the Japanese to land their forces on the coast from Chemulpo instead of Fusan; subsequently at Pi-tzu-wo, and, when frost disappeared, enabled them to use the Liao for supply purposes.

The difficulty of outflanking large forces was seen at Mukden. Here there were 650,000 men engaged; of these the Japanese had about 350,000. The Russians held a line which was about fifty miles long, the Japanese arc of attack was considerably longer. Hence it was difficult for Oyama to detach a sufficiently large force against his opponents' wings, and it was not till the close of the fighting that his main flank attack was developed in sufficient force to carry out its object.

The absolute indispensability of a railroad for large forces is clearly shown in this campaign. Without it the Russians could not have brought their army to the seat of war, and both sides were dependent on their railway for supplies. One single line sufficed for the supply of three-quarters of a million of men. The Japanese forces took five months

to get from Liao-yang to Mukden (fifty miles), and although the delay was doubtless due to some extent to the weather, the real cause was the impossibility of forwarding supplies until the railroad was open. Food must be collected before any advance can be made if large forces are to be kept together for fighting purposes. This, combined with the difficulty of moving troops in a country without roads and in an unfavourable climate, was a great cause of the slowness of the operations.

The Japanese had to alter the railway from Port Arthur to Harbin from the 5 feet to the 3 feet 6 inches gauge to suit their rolling stock. The light railway from Antung over the Mo-tien range was 2 feet 6 inches gauge.

The Japanese Division consisted of two brigades of two regiments of three battalions each. Each division had one cavalry regiment of three squadrons, six batteries of artillery, three engineer field companies, one bridging section, one telegraph company, and the usual train services. In round numbers, 11,400 rifles, 430 sabres, 36 guns, and 830 engineers.

Tactically.

Both the Japanese and Russians divided up their forces into more or less independent bodies acting together for a common end—*i.e.*, the large armies used in 1870 are no longer seen, and the aim of the supreme command has been to direct from a position in rear, undisturbed by battle-field influence, the combined movement of these subdivisions. In the Mukden fight the Japanese forces occupied a length of over a hundred miles from wing to wing. This was a considerably greater extension than has previously been seen. The method of operations appears to have been to give to each army a special sphere of action, and to leave to each within this sphere full liberty as to the

methods to be employed to gain the desired end. The extension of the forces has been rendered possible by the free use of intrenchments and the retaining power of modern weapons. Gaps, whether strategical or tactical, may now be safely left, because it is impossible to penetrate between them. This allows far greater extension of the forces than has hitherto been permissible, and hence makes it more difficult to deliver either a strategical or tactical flank attack.

Both sides made free use of the spade, which was one reason for the greatly prolonged battles which resolved themselves into the capturing of intrenched positions. The assailants themselves made use of intrenchments to assist them in gaining each successive step.[1] The fighting at Liaoyang lasted ten days, on the Sha Ho six, at Mukden fourteen. The only one instance of continuous fighting on one position in recent wars is on the Lisaine (1871), which lasted three days. Gettysburg and Leipzig took three, Bautzen two. Battles have usually been fought and finished in one day.

The use of intrenchments, by means of which the opposing parties got up close to one another before decision was come to, involved the use of the bayonet, because sufficient effect could not be obtained from fire in the short distance over which the attacking force had to pass. Probably one reason for the indecision of the battles was the exhaustion of the men after such continued fighting, besides the difficulty of anticipating the point of success and having reserve troops ready there to complete it with such a long fighting line.

Both sides are agreed that a shield is a necessity for field-guns, and both made use of indirect fire from concealed positions. Mountain-guns were used in the firing line, also machine-guns. The reason in both cases being to obtain a special intensity of fire effect either against material

[1] See *ante*, p. 173.

or men. Guns at close range often have a great moral effect. This was shown at Spicheren, Bazeilles, and Le Bourget.

A few heavy howitzers and some 4·7-in. guns were brought up by the Japanese to Mukden, but do not seem to have done much actual damage. They also used dynamite hand grenades for close fighting from trenches. At first the smaller Japanese field-guns were outclassed by the Russian quick firers, and the Japanese appear to have used the latter when they captured them. *Rafales* were not used by either side.

Neither the Russian nor the Japanese cavalry contributed anything new to the tactics of that arm. The Japanese was relatively small in numbers, and although they acted with great success in their dismounted duties, they did nothing as cavalry beyond covering the advance of their army up to Liao-yang. The Russian cavalry did not carry out their reconnoitring duties particularly well, nor did they take advantage of the great superiority they had for the purposes of distant action. Mischenko's raid cannot be looked upon as a success. During the actual fighting on the battlefield, neither side did anything as cavalry worthy of note. But at Te-li-ssu the Japanese horsemen acting as mounted infantry carried out a successful outflanking movement against the Russian left wing.

The Japanese infantry formations appear to have been of the ordinary form—*i.e.*, firing line supports and reserves; but the firing line used was fairly thick, so as to obtain superiority of fire as early as possible. At first they appear to have suffered, as they did in the war against the Chinese, from using too dense a front line; but on the whole the evidence shows that throughout the war they used men at far closer intervals than those contemplated until recently in England. The company is drawn up two deep, and has three sections. A very common form of

advance was for these to move to the front in file from the flanks of sections, as they were thus more easily hidden from view. Generally we may deduce the rule that, although a frontal attack is not impossible, it can only be carried out by very brave troops at great loss, and that a flank attack as a means of turning the enemy out of a firmly held position affords the best prospect of success. This attack may be local—*i.e.*, at some point or points in the line held by the enemy—not necessarily absolutely against the extremity.

SOME DEDUCTIONS FROM THE FOREGOING CAMPAIGNS.

THE student who has studied the Campaigns contained in this Part cannot fail to see that to complete a strategical operation tactical victory is necessary. Ulm, Jena-Auerstadt, the battles which terminated at Eckmühl, Waterloo, and Königgrätz, are all examples of this fact. Strategy, therefore, which merely pushes the enemy back without involving him in the consequences which follow from defeat in battle, can never be decisive. Herein lies the main reason for the prolongation of the South African war. For on no occasion after Paardeberg were the Boers, owing to their mobility, caught and severely handled in any large numbers; and it was not until the system of dividing up the country by blockhouse lines was introduced that any real impression was made on the Republican forces. An army composed largely of infantry can be brought to bay by a similar force; but no means have yet been found to enable foot-soldiers to catch mounted men unless the progress of the latter be obstructed. It was the proper appreciation of this fact which brought the Boer war to a conclusion. In the Manchurian campaign the Japanese, though successful, won no crushing victory over their opponents, because their strategical attack was essentially frontal.

In the case of war between armies of fairly equal size, it is obvious that the strategist who is able to move his forces

more rapidly than his opponent, and thus concentrate superior numbers against him, will gain a great advantage. But in European warfare the huge masses taking the field will tend to slow down strategical movements, because it is so difficult to bring up the necessary supplies to them. A rapidly moving force, therefore, even if relatively small, which can move swiftly round such comparatively inert bodies, will once more exemplify the value of the Napoleonic dictum, *Activité, activité, vitesse.* The nation which first appreciates this fact, and makes a considerable portion of its army truly mobile, will inevitably gain the victory over a slower opponent.

Another fact stands plainly out — viz., that in every strategical operation success was due to actual or potential interception of the line of communications.

At Ulm, Mack was surrounded. After Jena-Auerstadt, the capture of the Prussian line of retreat gave Napoleon a shorter line to the Elbe and Berlin, and brought about the disasters which swept away all but a remnant of the Prussian military forces.

In 1809 the defeat of the Archduke, and the seizure of his line of communications south of the Danube, compelled him to retreat by the northern bank, and enabled Napoleon to reach Vienna with little subsequent fighting.

Fear of the loss of their communications prevented proper united action between the Sardinians and the Austrians in 1796. Bourbaki had to fall back on Switzerland because he could not keep open his line of communications with the south of France; while the blockhouse lines intercepted the Boers' lines of retreat, and finally compelled their surrender. At Mukden it was Nogi's attack on the right flank of the Russians, threatening their line of retreat, which compelled Kuropatkin to fall back.

These considerations lead to three deductions:—

1. To complete strategical operations tactical victory is requisite.

2. Manœuvres directed against the enemy's line of com-

munications are the most effective because they prepare the way for strokes which may be decisive.[1]

3. Mobility which plays so important a part in (1) and (2) is one of the main factors of success in war.

Admitting these, it plainly follows that to close with the enemy should be the first aim of a leader as soon as the strategical situation renders it desirable. Secondly, that in laying down the general idea for a campaign, the chief point to bear in mind is to direct the strategical blow against the enemy's channels of supply. The geometrical form of the base of operations may make this possible from the beginning of the campaign; but in any case it must form the main object of the manœuvres. Great and striking success is only to be obtained by the annihilation of the opposing force. This can rarely be attained unless its communications are cut, or at least so threatened as to cause a disorganised and precipitate retreat. This was well exemplified in the Manchurian war. The Japanese never possessed sufficient superiority in numbers to enable them to act in force against either flank of the Russians, while the large size of their army, dependent on one line of railway only for a considerable part of the war, rendered their movements very slow.[2]

Great mobility is desirable for another reason. It gives to a skilfully led army, which possesses it in a higher degree than those it may be opposed to, the power of the initiative. The general who, by the rapidity of his movements, wins battle after battle raises the spirits of his troops, depresses those of the enemy, and reduces his opponent to the condition of being obliged simply to ward off the blows dealt him. The latter has almost helplessly to conform to the will of the general thus dealing with him, and

[1] Napoleon said, "War is an affair of communications." By this he meant how much depends on the proper supply of troops and the maintenance of free passage back to their depôts and stores.

[2] The 2½ ft. gauge railway from Antung to Hsin-min-ting was not available till towards the end of the war.

must for a time abandon all efforts to carry out his own plans. To stem the rapidly mounting tide of his adversary's success he must gain a tactical victory. History shows that this becomes less and less probable with each additional engagement lost.

The results to be obtained from the initiative largely affect the zone of strategical development. For plainly, the army which is ready first is the most likely to be able to begin successfully and with superior numbers. The means of access to the frontier will greatly influence this, and hence in European war the number of railways leading to the immediate base will exercise a predominating influence in its choice far more in all probability than any other factor.

It is evident also that a rapid prosecution of the war from the commencement of the struggle is in the long-run the most merciful and least costly. The leader who fails because he fears to expend life is the most expensive form of general a country can suffer from. To break off a battle because 10,000 men have fallen when the additional loss of another 2000 would lead to success, results in fighting again and losing another 10,000. To move slowly, because to move quickly means the expenditure of increased numbers from fatigue, results in missing many a chance of surprising or out-manœuvring the enemy, and thus prolongs the war. This causes further sacrifice, and gives opportunities to the quicker acting general to inflict damaging defeat on his more sluggish adversary. If Napoleon had commanded the Russians against the Japanese in the late war, would he not have taken advantage of their slowness?

It may, perhaps, be asked if the strategical principles laid down in these pages, as applicable to civilised war, hold good when fighting against uncivilised or unorganised forces or savages. The answer must be in the affirmative, although very often success against them is more due to tactical victory than to any advantage gained by strategical manœuvres. The reason is that all three classes have but simple arrange-

ments for their food-supplies, which they usually carry with them. They have not any real line of communications—*i.e.*, one of vital importance to the maintenance of their troops in the field. Practically all such forces make use of movable magazines—*i.e.*, take their supplies with them. They must, of course, have depôts for their ammunition, and the better they are armed the more will they have to depend on these, as modern cartridges cannot be improvised. Also if the operations are prolonged they must have sources of food-supplies, and operations against these will be as effectual as in the case of more civilised and better organised troops. Experience on the north-west frontier of India has shown the value of this line of action. But very often for expeditions of short duration strategical manœuvres against a flank or rear will not have the same value as in civilised warfare, in which that highly complex machine the modern army is so dependent on its base of supply for the proper supply of its various wants.

Savages and uncivilised forces are capable of rapid movement for short periods, but their want of organisation prevents them from carrying out long-sustained efforts, and they can be worn down by the persistent pressure that a properly constituted army can bring to bear on them. It follows, therefore, that the best way of overcoming their resistance is to bring them to bay and inflict heavy punishment on them, from which they recover less easily than does a well-organised army. If it be possible to seize and destroy important sources of food- or water-supply this should be done, and such an operation would come under the head of a strategical manœuvre, as also would the surrounding of any such force. But the complicated efforts undertaken for strategical purposes in civilised warfare, on account of the great results they yield, find no place in operations against ill-organised foes, where the main object should be, even more than in civilised war, to annihilate the enemy's army.

But the very quality which enables the rightly ordered

army to defeat irregular forces in the long-run—viz., the certainty of maintaining its full fighting efficiency by supplies of men and material brought up from the base along the line of communications—makes the security of the latter vital to success. We have seen in the South African war the enormous difficulty and the complicated arrangements needed to maintain the blockhouse system, by which alone the railways could be protected from raids of the highly mobile Boer commandoes. Against a less intelligent and slower moving army such extensive precautions would not be required, though the difference would be one of degree, not of system. In all cases when acting in a country against savages or irregular levies, the first duty of the general is to secure his line of communication against attack from a foe who, untrammelled by the *impedimenta* of a civilised force, can act with such rapidity. Commercial enterprise places many of the resources of modern military science at the disposal of such an enemy. A certain class of trader is rarely hampered by considerations of patriotism, and in addition it is certain that foreign merchants will always be willing to supply him. We must always, therefore, reckon on dealing with a foe who possesses the advantages before enumerated over our troops, intensified by the fact that his armament and means of destruction are in many ways as good as those we possess ourselves.

It is always desirable in war to obtain the fullest results from a victory by pushing home the pursuit with the utmost vigour, and this is doubly desirable against an unorganised foe, who is more affected by it, for the reason given on the previous page, than is a regular enemy. Hence it follows that mobility, which, as we have seen, is always of great value in European conflicts, is of double worth in dealing with irregular opponents.

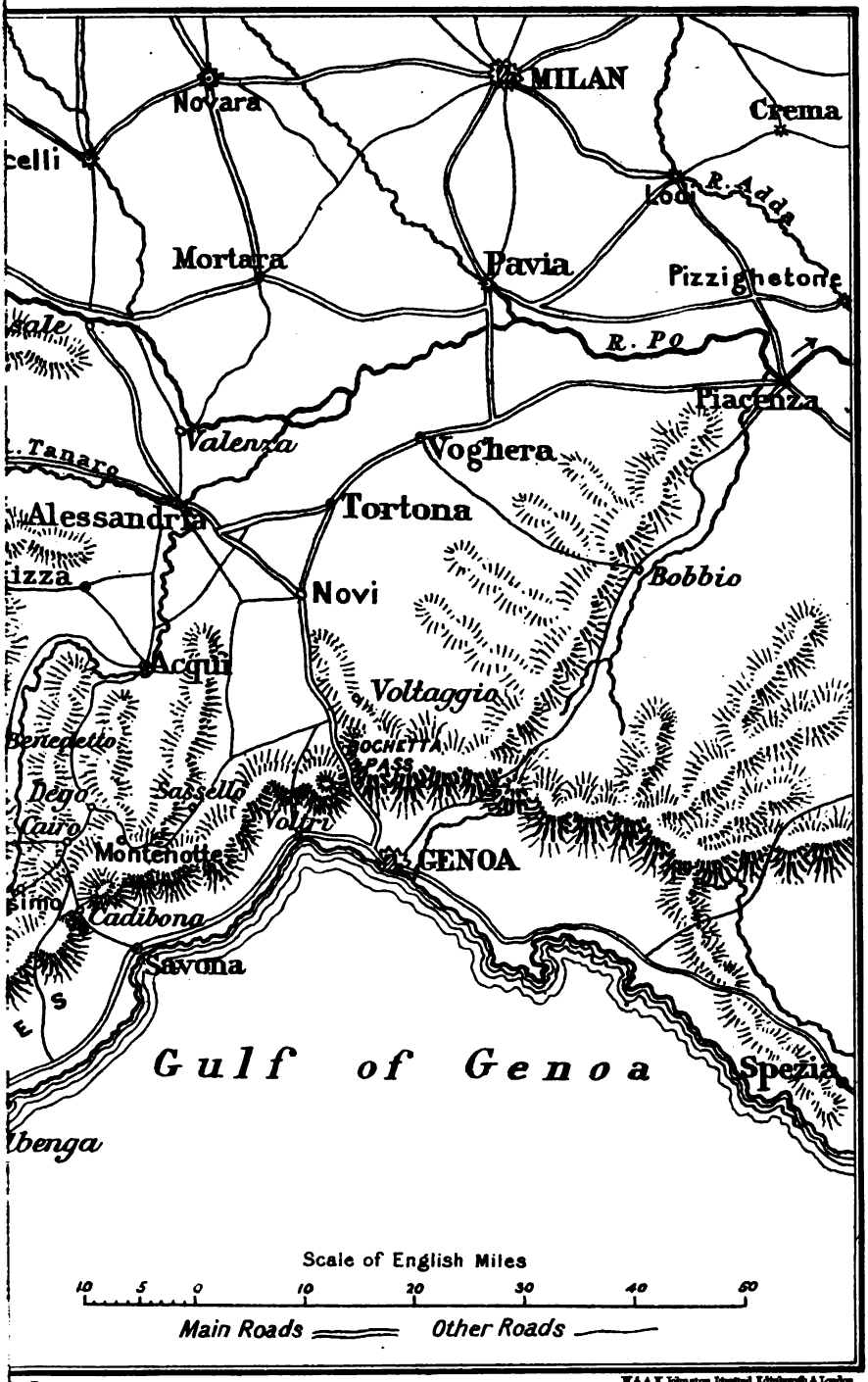
It is sometimes contended that when fighting such organisations greater dissemination is permissible than is otherwise the case. This is not accurate. Concentration has

the same value in all warlike operations. If when fighting in an uncivilised country many columns are employed, each must be capable of dealing with any force the enemy is likely to bring against it. In the Zulu Campaign (1879) the whole of the fighting fell on the 2nd Division and the Flying Column; the 1st Division contributed nothing whatever to the success of the operations in which it practically took no part. The original plan of invading Zululand by five isolated columns, which could afford no support to one another, was faulty in the extreme. The Natal border should have been watched defensively, while the main attacking force should have pushed on in one concentrated mass for the king's kraal. As a rule, the only excuse for dissemination is the physical difficulty of traversing some particular tract of country, such as a mountain-range. In such circumstances it must be remembered that it is precisely in ground of this character that the local knowledge of the irregular foeman tells. In the latter phase of the Boer war it was necessary to use many columns to sweep up the enemy's scattered forces and to ensure that these did not escape through some unwatched spot. But more than once the difficulty of synchronising the movements of such bodies became evident and led to insuccess.

To sum up, we may say that the rules of war obtain equally in uncivilised as in civilised operations, but that their application will vary in accordance with the nature of the opponent, their primary object—viz., the destruction of the enemy's field army—remaining the same in both cases.

Whether against a civilised or savage foe, to wage war must always be an object of abhorrence: the passions of men cannot be let loose in a struggle where life is the stake without disastrous effect on all concerned in it. The more reason, therefore, to conduct it so that victory, which leads to peace, may be obtained at the earliest moment. This can only be done by a nation throwing its whole

energies into the struggle, by the leaders of its troops being past-masters of the military arts, while the armies they command must be trained to such a pitch of perfection in peace as to render them equal to the highest requirements which may be exacted from them when fighting. History teaches very clearly the ultimate fate of every people that fails to adequately organise its forces for the day of battle.



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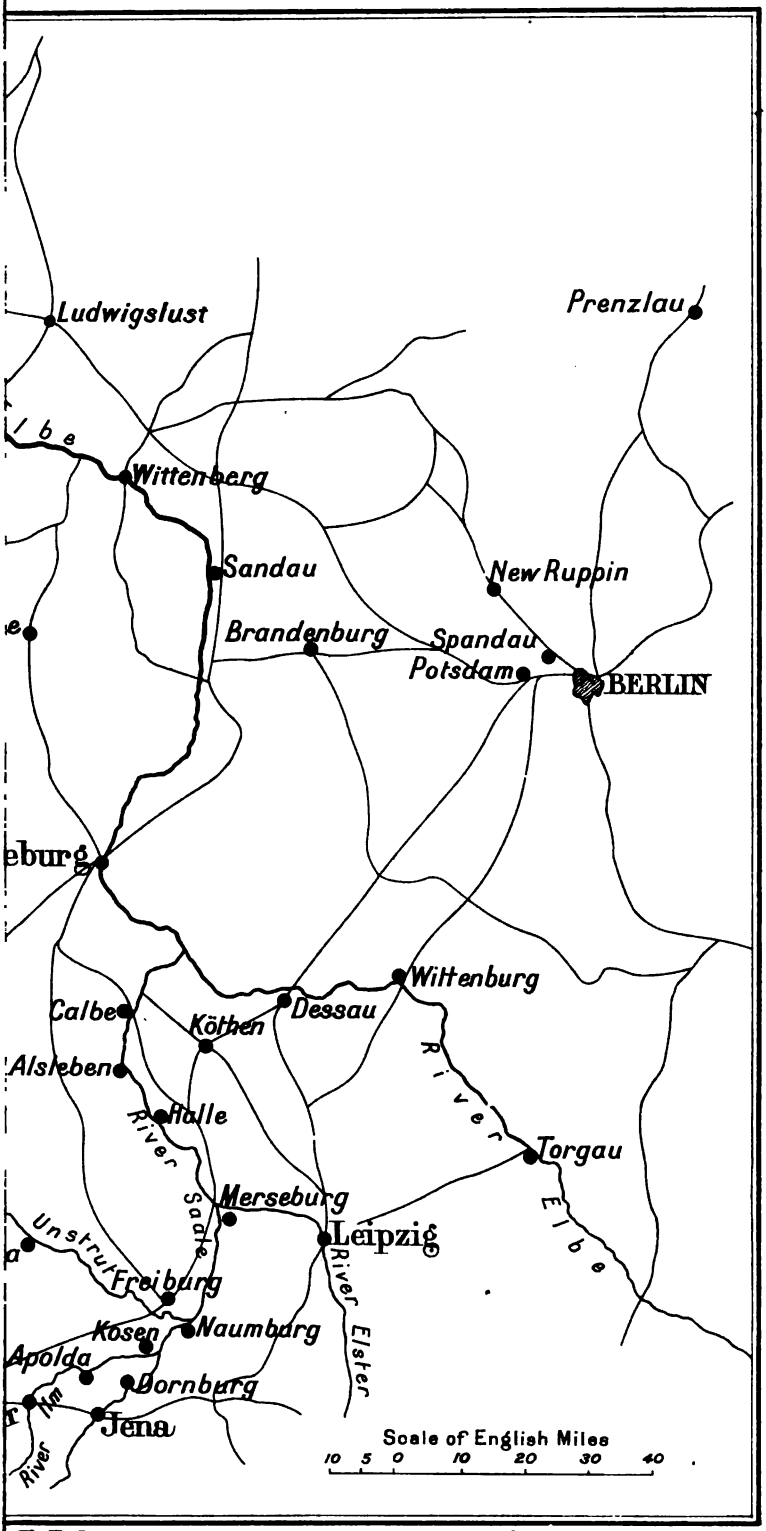

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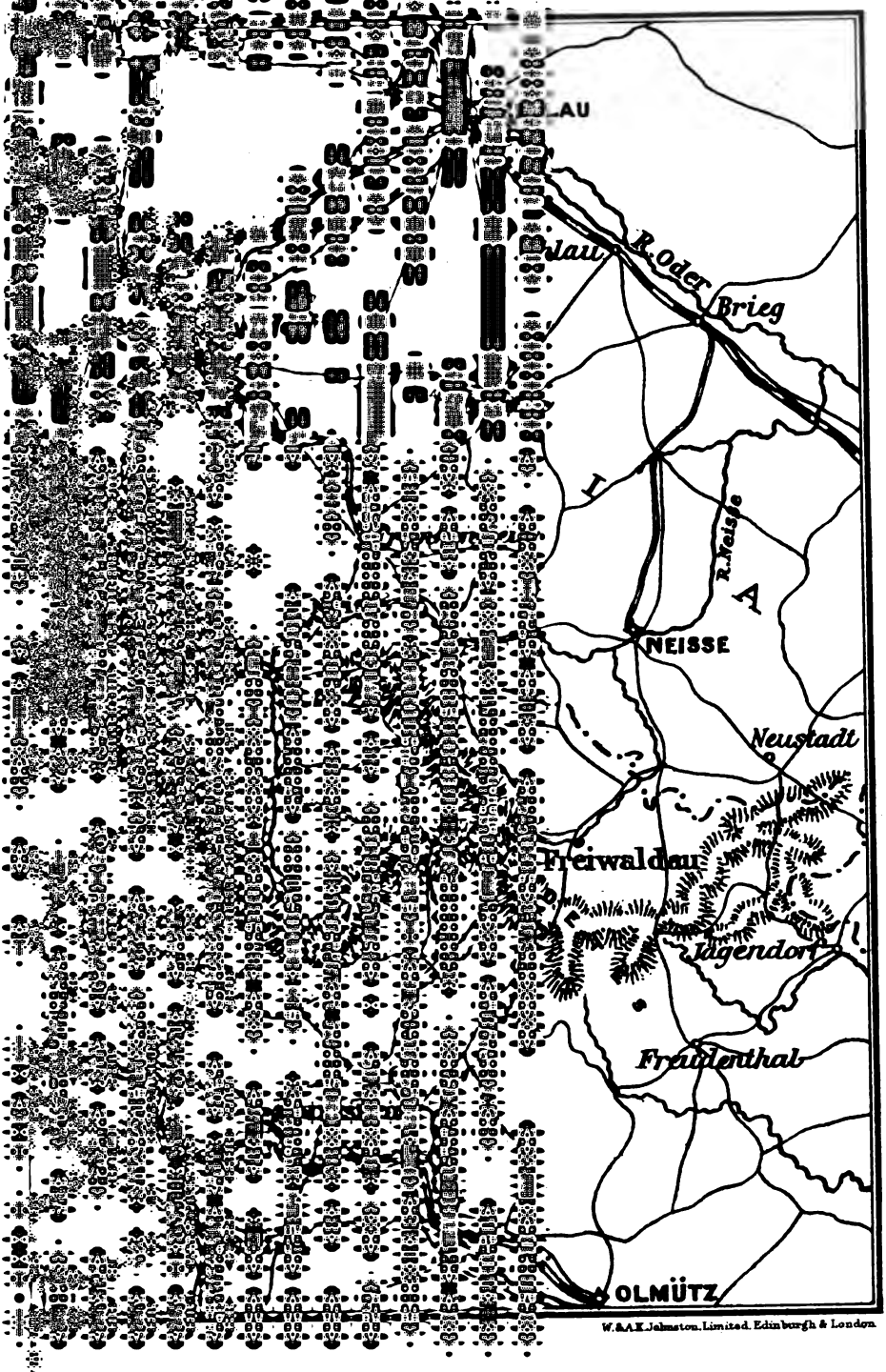

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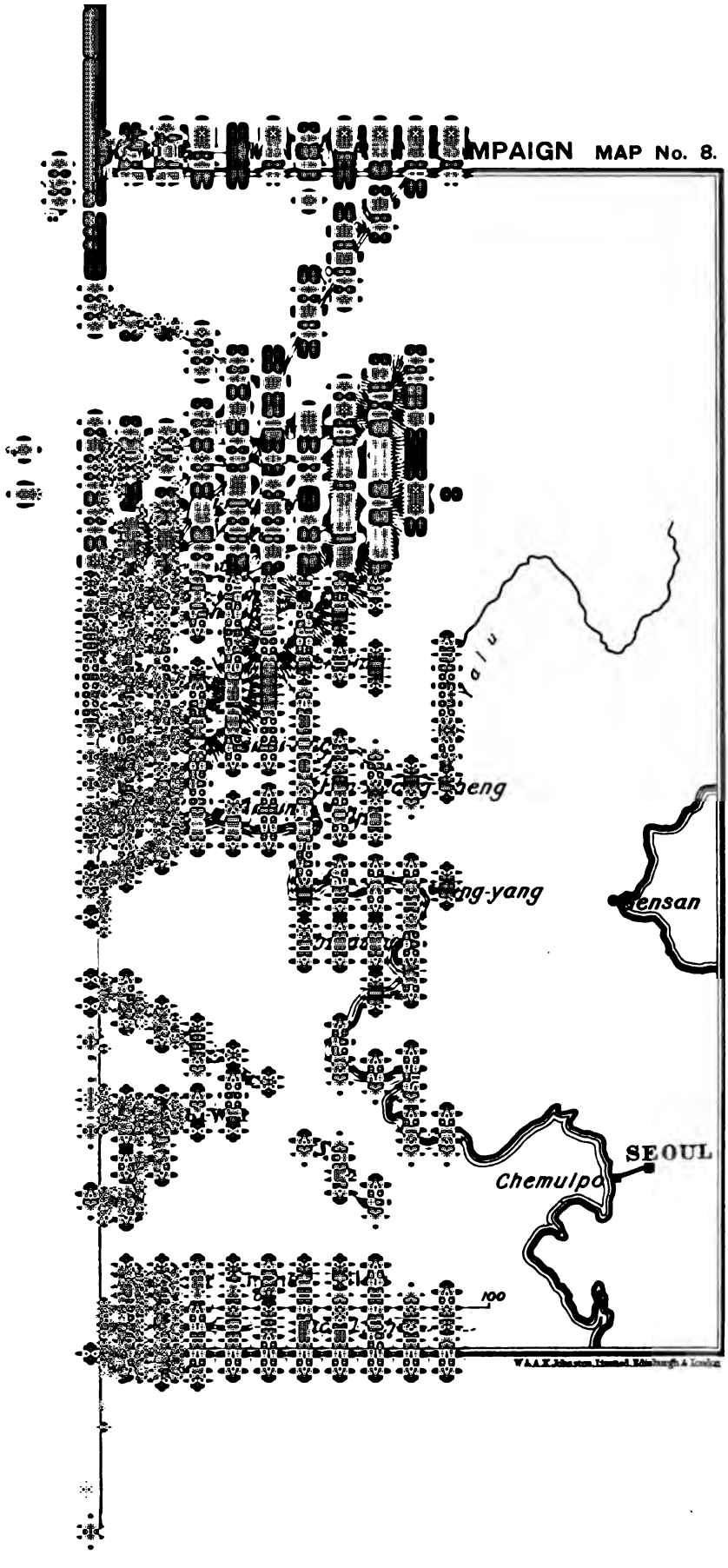
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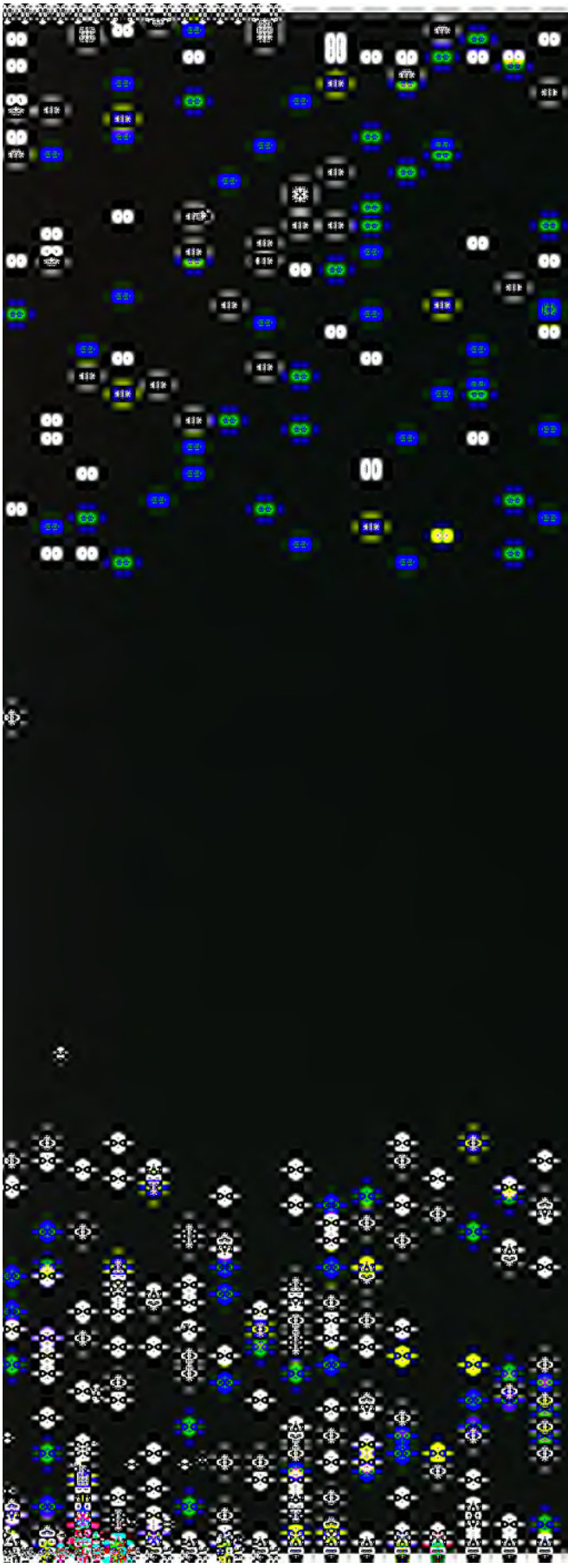

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